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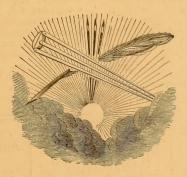
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DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

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January, 1877.



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### **PHILADELPHIA**

PHOTOGRAPHER.

EDITED BY EDWARD L. WILSON.

VOLUME XIV.

PHILADELPHIA:
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- February.—View in Yosemite Valley. By J. J. Reilly, San Francisco, Cal.
- March.—Interior of a Moorish VIIIa. By the CENTENNIAL PHOTOGRAPHIC COMPANY, Philadelphia.
- April.—"In ye Olden Days." Cabinet composition. By the CENTENNIAL PHOTOGRAPHIC COMPANY, Philadelphia.
- May.—In the Adirondacks. By S. R. STODDARD, Glens Falls, N. Y.
- June.—Cabinet Portrait Study. By H. Rocher, Chicago, Ills.

- July.—Italian Statuary. By Wilson & Adams, Philadelphia.
- August.—"Jotham Shaw." Cabinet study. By Wilson & Adams, Philadelphia.
- September.—Carbon print—"General Sheridan and Staff." By C. GENTILE, Chicago, Ills.
- October.—Miss Simplicity. By Wilson & Adams, Philadelphia.
- November.—Study in Photography. By the CEN-TENNIAL PHOTOGRAPHIC COMPANY, Philadelphia.
- December.—"The Fisherman's Daughter." By
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## Philadelphia Photographer.

Vol. XIV.

### JANUARY, 1877.

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BY BENERMAN & WILSON,
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### EIGHTEEN HUNDRED AND SEVENTY-SEVEN.

GREETING.

It seems but yesterday that we hailed the opening of our Centennial year, with its high hopes and promises of stirring events, so soon has it passed. And yet in the seemingly brief space, how much has transpired. The great Exhibition to celebrate the one hundredth anniversary of American Independence has come and gone; thousands of our readers have dwelt upon its wondrous beauty, and are to-day wiser and better for its having been. And not only our readers, but the millions who gathered from the ends of the earth, and helped to make it an assurance of "peace and good-will" to the nations, have all been benefited thereby.

But here we are on the threshold of another annual turn of the great wheel of time. For a moment we pause, and seem to see the reality of what our poet Bryant says:

"A mighty hand from an exhaustless urn Pours forth the never-ending flood of years Among the nations."

And we witness that another drop has been added to the mighty stream. But these reflections remind us of the inevitable, the ceaseless round of nature; they remind us that we too are made for action, for duty, and for usefulness. So while we extend to

all our readers our most cordial greeting of a Happy New Year, we are fully sensible of the responsibilities it brings, and shall try to meet it with a firm resolution to act well our part to the full extent of our ability. This should be the resolve of all, especially of those who enjoyed the advantages of the past year with its many lessons of progress.

Every photographer who visited the art department of the great Exhibition should be able to produce better work this year than he did last. This is an age of progress; there is no such thing as prosperity without advancement, and according to our advantages so should our improvement be. Remember that "to whom much is given of him much will be required." It shall be our aim, as in the past, to give you all the light we can. As an evidence of the improvement among photographers, we hope to show a higher standard of work in our embellishments, as we have already on hand a few fine examples, and the promise of others from some of our best portrait and landscape photographers. In the contents of our magazine we hope to maintain an advanced position, if possible, and furnish something that will meet the requirements of all. We know there are professionals and amateurs, new beginners and those of long practice in the art, who all expect that their photographic journal shall contain matter especially suited to their respective cases, and we accept it as our duty to provide for each as far as we can. Our foreign correspondents, Prof. H. Vogel, of Berlin, and Prof. E. Stebbing, of Paris, will keep us informed on all photographic matters in Europe, while our able corps of contributors at home will reflect the advanced thought and practical working of our leading American artists. To this end, and in addition to those whom we already consider our regular contributors, we hereby solicit contributions from any who may feel disposed to communicate their methods or experience. It is your magazine as well as ours, and by communicating your thoughts to each other, our interests become mutual and our improvement all the more certain.

Let us go to work then, each man in the capacity to which he seems best adapted, and work together with a will for the advancement of photography during the coming year. To those in subordinate positions we would say, there is no surer means of promotion than in performing well your part where you are. From washing glass, with its corresponding duties, to a partner or proprietorship, is a regular process of advancement open to all; and industry, fidelity, study, and effort to improve are sure to bring their reward.

To those who are proprietors we would say we feel encouraged to hope for a better business during the coming year, and we would urge upon all the importance of trying to make business. A great deal can be done by a little activity. Lose no opportunity to exhibit your work. Make a little noise in your community if it is necessary; let people know that you are doing something, and they will be much more likely to give you something to do. Read your photographic journals and books, let no new thing escape you, and do not hesitate to put in practice any good suggestion, from whatever source it may come. Thus may we all gather new thoughts, new hopes, and new courage for the future, and realize all that our best wishes could possibly suggest for the year 1877.

RESOLVE to do better work this year than ever before.

### VOLUME XIV.

WITH this number we commence the fourteenth volume of the Philadelphia Photographer. For thirteen years the monthly parts have gone out regularly to our subscribers, with no interruption or failure, and as we look back over these years of successful effort, we cannot but entertain a feeling of pride that our magazine has had a longer period of existence thus far, than has ever been vouchsafed to any similar enterprise in America. For this success we are truly grateful; but it has not been attained without unremitting effort. Our pressing duties have many times encroached upon the hours that should have been devoted to sleep, and no subscriber or correspondent has ever asked us a question or sought assistance in his work, that we have not responded to as promptly as the circumstances would permit; and in some cases we have given parties a full course of instruction in photography by correspondence alone, and without ever seeing them. We say this in order that our readers may know what our policy has been, and what we considered our duty to them personally as well as through our magazine. Our purpose has been to help all who are seeking help, and lose no opportunity to advance the interests of our art as well as that of those who were striving to improve in its practice. Thus much for the thirteen years which have passed. Now as we enter upon another, we can only say that the lessons of the eventful years referred to, which have witnessed such wonderful progress in the photographic art, are our best guide for the future, and we shall endeavor to continue to devote ourselves to the production of the best photographic magazine in the world, which means, one that shall give instruction in everything pertaining to the practice of photography; shall try to protect its readers against fraud or imposition, and preserve the highest possible standard, both for its literary and photographic productions. And here we will say to our readers that to do this we want your sympathy, a little of your money, and to those who feel disposed, your occasional contributions.

Look at our premium offer on the third page of the cover, and each one try and get us

a new subscriber. A dollar's worth of books will do you good, and you may get ten times that much value from them during the year. Remember, young men especially, the prosperous photographers of our country are they who have read and studied You cannot afford to do without photographic books and a good magazine. So let us all work together, each trying to do his best in his particular sphere. We will guarantee to give you a good journal, and we want you all to work with us in trying to improve yourselves, so that this fourteenth volume of the Philadelphia Photographer shall record a progress second to none within the history of our beautiful art.

### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

In the early part of the past year, occasion induced me to return to Philadelphia. I became possessed with the most intense desire to see something of the great Exhibition, and fortune favored me so far as not only to give me the opportunity of doing so, but as well to make me rather an active participant in the branch of it most interesting to us all, i.e., the photographic.

A great majority of you have visited "The Show," and all of you have read of it. There should not be a photographer in the land unfamiliar with the most of its details. Every one appreciates the necessity that existed of having our remembrances perpetuated, and all of us should claim that photography could be the only sensible method by which to accomplish such an end.

I do not think that you will cavil at the arrangements by which system and good order have been maintained throughout what has proven to be the grandest undertaking of modern times. It was deemed necessary to establish as a special department that of the "picture-making," and to accomplish the design, an organization was created, that has been, is now, and always will be known as "The Centennial Photographic Company." The operations of this concern have been of sufficient im-

portance to render its very existence an era in the history of our art.

Notwithstanding the curiosity that prompts us all to "want to know" something of the details of the incipient formation of "The Company," it is altogether foreign to my purpose to retail the gossip I have heard in regard to it. It is quite sufficient to understand that Edward L. Wilson, of Philadelphia, and W. Irving Adams, of New York, are the sole responsible proprieters, engineers, and managers.

A large amount of money was invested. All of the available talent in the country was procured to supply the positions of operators, printers, and general manipulators, and it is now only of the results, and of the methods of producing them, that I have to speak.

The character of the work was dissimilar in many respects to that which either the portrait or view photographer was accustomed to make. I would defy any of our most experienced to enlist in the ranks, and immediately fill the requirements of the position.

Unfortunately I am not very methodical, otherwise I should, in the first instance, describe to you the appearance of Philadelphia. Then I would talk to you of a trip in the street-cars, of our approach to the Centennial grounds and of our first general impressions. Then I would lead you directly to the photographic studio.

Supposing ourselves in company, and arrived there, we find a large building, very long, very broad, and very low; that is, it is only one story in height. These dimensions so stated, scarcely answer the requirements of a mechanic, nor would they do to act upon as a basis from which to construct a duplicate.

The general external appearance is very pretty. If you have any doubts of the assertion, buy a photograph and be convinced. The designer must surely have been a Spaniard, for in the construction we have a repetition of the favorite style of a Castilian house; that is, there exists an open courtyard in the centre, about which the various rooms are placed. The front ones, those facing Belmont Avenue, are occupied as stores or general delivery depots. There are offices also; little snuggeries you might

term them. One of them is an exceedingly attractive apartment, especially upon a Saturday evening when every one connected with the establishment files in and collects his quota of cash. Lengthwise, upon one side, there are operating-rooms, veritable studios, devoted to legitimate portrait-making. Facing these, upon the other side, are accommodations for printing, toning, and washing. In the rear, closing up the quadrangle, are the rooms in which pictures are mounted, lubricated, burnished, in fact, finished. Then too, there is the dark hole devoted to the outside or view operators, but to which, alas, they are not always so much attached.

It is my design to take you through these apartments, and to talk with you about all that is being done in each of them.

In consideration of the vast amount of work that was required, it was necessary to secure the most approved methods applied to every detail. A description of these items may possibly be of service.

I am becoming timorous in regard to promises. They tell me that I am too ready with them. However, I am sincere in my intentions when I assure you that I should like to drag you with me into every one of the Exhibition buildings, describe to you the nature of the work to be done, to tell you how we have been and are doing it, and to have some little discourses about the same.

I think that I am safe in asserting that, in the United States, nor even in any other part of the world, there has never existed a photographic establishment whose operations have been more extensive. It was deemed advisable by the Centennial Board of Finance to secure to the one company the exclusive control of all of this work. When the Exhibition commenced, it became apparent that a large number of people would have to be admitted daily upon season tickets or passes. The class comprised representatives from all of the nations of the world, exhibitors of goods, attendants, workmen, guards, firemen, and in fact a host of all sorts of folks. Some astute individual suggested that the only method of preventing the improper use or exchange of these tickets would be to insist upon the necessity of a likeness of the owner placed upon them.

The plan proving an excellent one, was adopted. It necessitated, though, a vast amount of photographing, that is, portrait making to be done on the jump, or in a hurry. The Exhibition opened upon the 10th of May. It was heralded that after the 1st of June all passes would be forfeited that did not contain the regulation picture. When so many thousands of people were to be accommodated, it is not difficult to understand that "a rush" ensued. The scenes at the studio became sufficiently interesting to attract much public attention. Newspaper men described and pictured them, and in good truth they were worthy of the trouble.

The crowds of people, each individual of which was waiting for "his turn to come," were of the most conglomerate description, and the operators who have attended to them, can rightly claim that they have pictured every variety of the human face divine. (?)

I have already said that one side of the building was devoted to portraiture. The entire length of it was a continuous studio with top and side-light. This was divided into various minor compartments by means of backgrounds and hanging screens. In every subdivision an operator was placed. Each was supplied with a "dark-room man," and boys were at hand to carry plateholders backwards and forwards.

Some of you like myself may have had experiences in photographing during war times when rebellion was in vogue. Those who recollect such, can recall the lines of struggling men with whom we used to have to contend. How we had to insist upon the foremost having the first right, a sort of a repetition of a "barber-shop" arrangement on a Sunday morning, when "next" is the cry. Every reminiscence of that kind must be cancelled, wiped out, by the recollections of "the Centennial rush."

The resources of at least one cabinet-maker's establishment must have been exhausted by the purchase of the line of chairs that extended along the wall. By eight o'clock o' the morning, each of these had its occupant, and then the work commenced.

Pause and think of it, gentlemen; three

posers, that was the number of them, talking to, arranging, twisting around, pacifying, and smoothing the vanities of between six and eight hundred people each day of the week. I believe that seven hundred and eighty-three was the largest number of sitters attended to upon any one day. I don't wonder that all of the three artists who did this are gray-headed. The occasion was sufficient to try any man. Messrs. Bigelow, Robinson, and Hopkins were the parties who exerted themselves, and to whom should be accorded the praise.

Some sensational reporters who managed to squeeze in, have already taken the wind out of my sails, and described the masses of humanity that sat upon those chairs, and patiently, or more properly speaking *im*-patiently awaited attention.

There were Americans, plenty of them, Englishmen almost to an equal extent, Frenchmen, Spaniards, Germans (an unlimited quantity), Turks, Egyptians, and, I was almost about to write, Hottentots. However, we had their near relations, the Africans, to almost a superfluous degree.

You must acknowledge that there were here presented a diversity of subjects, but to suppose that every individual received different treatment, suiting his own peculiarities, would be foolish. They came, man, woman, and child. They were plumped into seats, behind each of which was a head-rest, and over it a number corresponding to an order, and they were metaphorically shot at.

Upon each plate three exposures were made, and some of these negatives, if looked over now, would be highly amusing to criticize.

The pictures were known as "pass-portraits," and as each one of these gave to its owner admission into the grounds, it is perfectly proper that a little advertence to the matter should introduce us to our further photographic talk.

Fortunately for the operators, there had been adopted a "regulation photograph," and, still more fortunately, it had been decided that this should be a medallion, a head and bust, printed with a dark background.

I can conceive of the confusion that any other arrangement would surely have

created. Had each one of the sitters been allowed to follow the caprices of their individual fancies, and demanded full-lengths, half-lengths, or other lengths, the task would have been interminable.

The adopted plan merely necessitated a change of the subjects, not of the instruments or accessories. In fact, it was scarcely required to focus the lens a second time during the day. A chair was placed upon one space (it ought to have been screwed to the floor), a head-rest behind it. and a camera before. The successive occupants of the chair remained upon it so short a time, that the conversations between artist and model were exceedingly brief. Anecdotes, therefore, in that line are scarce. It is to be remembered, too, that a large proportion of the customers could neither speak nor understand English, and it is not considered a necessity that a photographer should be a linguist.

An excellent idea was adopted. A miniature gallows was erected, and stood over the heads of the victims. It suspended a small blackboard, upon which was chalked figures corresponding to the number of the check given to each sitter. The applicant's head and the slate were then photographed at the same time, and the resulting negative transformed Mr. So-and-so into number such and such. It was placarding one as they do in a reformatory school. Individuality was made of minor consideration to arithmetic. The plan was a most excellent one, and now No. 14,329 can get duplicates of his original card more unerringly than if he was to present his name of Smith, Brown, or Jones.

Every one who came did not possess these ordinary titles, and the lady who presided at the registration desk often had her ears shocked by apparent jargon. The Russian and Abyssinian are undoubtedly dissimilar tongues, the French and Chinese equally as much so, and probably there were others more widely different. All of these, however, were heard in the neighborhood of that corner, and each speaker had to have his or her wants attended to. There were some enterprising artists connected with the leading newspapers of the country, who insisted upon hovering around the establish-

ment. They did by sketching that which is more difficult to accomplish by photography, and have already furnished the public with caricatures and character scenes of the groups daily congregated in our operating-rooms.

Every variety of feature and caste was to be seen. The high-toned exhibitor of some magnificent foreign display had to await "his turn" equally as well as the insignificant servant of a restaurant.

If there had been time to devote to it, a fine selection could have been made that would have proven invaluable to the physiognomist. As it is, the Company retained for use a large number of negatives, and now publish prints from them, entitled "Our Foreign Visitors."

It must not be supposed that all of the portrait work was confined to this one description of pictures. Groups of officials, commissioners, and functionaries of every kind, became in vogue, and were taken, sometimes inside at others outside of the studio. Many of these parties insisted upon arranging themselves in front of their own respective buildings, and all of them had the desire that a "Centennial Exposition" character should be given to whatever was done.

An unlimited quantity of people made daily applications for photographs of themselves, with some appropriate feature of the Exhibition serving as a background. There was a general desire pervading all comers to procure an especial souvenir. Many of these customers went to great extremes with their importunities, and I well remember that one of our operators, in his supreme disgust at the eccentricities of an individual, discarded altogether the name given to him, and labelled the negative as that of a fool.

Then, too, there were character pictures to produce, genrés, I suppose we must call them, single or combined figures to represent something or other. There were efforts to bring India, Turkey, Persia, in good truth, all of the countries of the world (or at least the people who have lived in them) directly into the studio. Backgrounds had to be improvised for each special occasion. Think of it, gentlemen; early in the morn-

ing, to be requested to get together a group of New England spinsters with Puritanical surroundings, and in the afternoon to indulge in all of the luxuriancies of Eastern scenery! Ingenuity had to be severely taxed.

I think that the results have been eminently successful, and the general public could readily be induced to believe that our operators have done an immense deal of travelling in foreign parts.

It is a shame to expose the private workings of any institution. It seems almost sinful to let you know that when you are looking deferently upon the picture of a New England kitchen built a century ago, you are, after all, only scanning a few old traps, tacked up on screens, hastily brought together for the occasion. Then again it is death to romance, to reflect that the sumptuous Eastern apartments, to see which you strain your eyes in "the scope," that you may gather in every detail, is, after all, made up of carpets and rugs hung on any available framework.

Again, the voluptuous-looking ladies, and the intensely sedate Orientals, with their turbans and pipes, become the most ordinary, if not offensive kind of people, upon really close contact.

Photography is no more truthful than any of her sisters in art. She can be induced to lie equally as much as any of them.

As I have before intimated, the Centennial Photographic Company enjoyed the monopoly, the exclusive right, to do all the work that could be done by means of our art, in and about the buildings and grounds. It is quite evident that strict systems had to be established, in order to facilitate its labors. The production of the pictures had to be intrusted to different departments. The parties engaged in any one division of the establishment were unwelcome to the employés in any other. Early in the season, therefore, the portrait and the view men became two entirely separate and distinct bodies. Their practices, from the necessities of the case, differed materially, and each was careful not to encroach upon the other.

Since I have commenced with the portrait side of the house, it will be as well to exhaust that part of the subject first.

Each operator had his own dark-room

man, but all worked in a similar manner, using the same chemicals and formulæ.

There was nothing new in regard to these, and the "old story" tells all. Albumenized glass, baths kept to a uniform strength, reliable, well-made collodion, the oldfashioned iron development, the pyrointensifier (when necessary), and the ordinary fixation baths, make up the sum total of mysteries. It is almost needless to premise that the Company was sufficiently alive to its interests to provide the best articles that could be procured, and plenty of them. To enlarge upon the subject of lenses, is only to get myself into interminable difficulties. To say, however, that the American Optical Co.'s boxes were the only ones used, is to tell you at once that the outfits in that line were unexceptional.

After awhile I must give some figures, detailing the quantities of silver, of collodion, etc., daily consumed. Although these will be very large, it must not be concluded that economy was altogether discarded.

Taking a retrospective view, I cannot but testify that all of the arrangements were made with admirable foresight, and in the main well conducted. Many of you, who visited us during the height of the season, expressed the same opinion.

It was no easy matter to remain upon the go from eight o'clock in the morning until twilight in those operating-rooms during the hot months; for instance, July and August, when the thermometer invariably registered a hundred degrees and more. Under the skylights the difficulties of working in such an intensely high temperature were not so great as the "outsiders," the "view men," had to experience. Of course, all sorts of dodges were resorted to in order to keep cool; but however effectual such plans might be upon the plates, they could not prevent the wear and tear, the depressing and exhausting effects, upon the human machines. Corroborative testimony on this point is plentiful enough.

(To be continued.)

### MOSAICS FOR 1877.

OUR popular annual has been issued, and we bespeak for it a hearty welcome among its many readers. It is sparkling with good

things from a host of contributors, and we think no number has ever been issued that was more fresh and readable. The diversity of subjects treated is as great as the number of articles, and all are sure to find something that will help or encourage them in the prosecution of their work. Among the contributors are the names of Mr. Thomas Gaffield, on "Glass for Photographers' Use;" Mr. H. J. Newton, "On Cleaning Plates;" Mr. I. B. Webster, on "Nothing but a Photographer;" Mr. E. K. Hough, on "The Advantages of a Magnifying Glass in Retouching;" Mr. J. H. Fitzgibbon, on "My Way;" Mr. E. T. Whitney, on "The Future of Photography;" Mr. C. A. Zimmermann, "Hints on Photographic Processes:" Prof. H. D. W. Moulton, on "Dry versus Wet;" all of whom have given excellent articles, besides a large number of others, whose contributions may be read with equal interest and profit. In addition to these is a valuable article on "The Metric System," by a gentleman who is eminently qualified to treat the subject, and the tables there will be found perfectly reliable. To those who wish to convert a formula from the metric system to apothecaries' weight or vice versa, this article will be of great service, and a copy of the book should be kept at hand for reference.

All who desire to keep well up with the times should not fail to secure a copy of Mosaics for 1877; and to do so we would advise them to order early, as many were disappointed last year on account of the demand being greater than the supply. You cannot make a better investment of fifty cents. A few copies will be bound in cloth as usual, which may be had at \$1 each.

### On a New Application of Sensitive Negative Tissue.

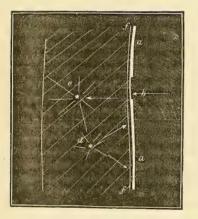
BY LEON WARNERKE.\*

THE new application I intend to submit to the notice of this Society is a mode of producing combination negatives applicable to almost every class of photographic production. It is based on the special facility

<sup>\*</sup> Read before the South London Photographic Society.

the tissue negative possesses to be joined together; but, unlike the system lately described of producing panoramic negatives by joining various sections of the panorama edge to edge, I join them for the purpose face to face, or I superpose two, three, or any number of the images to form the desired combination. It involves the necessity of producing a positive transparency, which is printed again (using the tissue in both instances), and reproduces the negative with all the alterations, additions, or subtractions.

Before I proceed further I will make some observations on the reproduction of the negatives. It is a recognized fact that negatives cannot be reproduced equal to the original by means of the collodion glass plate, wet or dry, either in the camera or by contact printing. The reason of this I attribute to the diffusion of light in the thickness of the glass, which I shall endeavor to explain by means of the following diagram. Here is represented a section of



the glass plate covered with sensitive collodion f; a a represent an opaque portion of the negative destined to intercept the light, while C is the transparent part. The light acting in the direction of the arrow will affect the sensitive surface situated beneath C; but the sensitive coating f not being opaque it will penetrate it, and will illuminate the glass supporting the sensitive film. Reaching the opposite surface it will be partly reflected from it, backwards; and, although this reflection is a highly distort-

ing element, I eliminate it from the present discussion, because it can be prevented by the non-actinic backing of the glass plate.

Before the light reaches the back surface of the glass it will illuminate the multitudinous particles forming the body of the glass. Each of those particles, c, becoming luminous, will shine in all directions, and will illuminate the neighboring particles, d, which, in their turn, will affect the sensitive surface from the glass side; then the place that was protected by the opaque part a from direct light is now exposed to the reflected light, which, although a great deal weaker than the direct light, will, nevertheless, tell its tale, altering undesirably the relation of the gradation of shades. This, according to my idea, is the reason of the impossibility of reproducing the negative correctly on the glass plate.

The sensitive tissue, by its extreme thinness, and by the absence of a polished back surface, is free from this defect, and for this reason is admirably suitable for the reproduction of a negative possessing, unaltered, the quality of the original.

In this place I may notice that the magnificent carbon transparencies produced by the Autotype Company for subsequent enlargement owe their recognized superiority over silver transparencies to the very same cause, namely, the carbon tissue on which they are printed, like my own sensitive negative tissue, has no glass support, with its inevitable reflection and diffusion of the light.

Having thus theoretically given the reason of the advantage of using the tissue for the intended purpose, I shall practically demonstrate the advantage gained by the facility with which I can multiply various combination effects, by superposing several films bearing separate portions of the final combination, the thinness of each film being the reason why the combined pictures neither lose in sharpness nor transparency.

Beginning thus with a landscape subject: the original negative, as is usually the case, will represent the sky when printed as white paper. A great improvement will be conferred by reproducing this negative with clouds, and this is done in the following manner: First the transparency is printed on the tissue, taking care to secure the sky

perfectly transparent. Another transparency is produced from the cloud negative, having perfectly transparent all the space corresponding with the landscape outline, which is easily done by inserting between the cloud negative and the sensitive tissue a paper mask cut out from the sheet of albumenized sensitive paper, after printing it behind the landscape negative, cutting out with scissors or knife the part representing the sky, and blackening it subsequently by light. Two transparencies thus produced will, when superposed; form a new one, which, when printed in contact on a fresh sheet of the sensitive tissue or copied in the camera, will produce a negative either the same size or diminished or enlarged, which naturally will give a print on paper, or otherwise, equal to the original in quality, but-having the sky represented by clouds instead of white paper, and reflecting the artistic feeling of the manipulator displayed in the choice of the suitable cloud subject, and in giving them proper intensity or gradation of intensity.

My next illustration is the application of the same system to a portrait negative. By examining the combination which I now submit for inspection you will observe that it is formed from three films-the first bearing a representation of the ornamental moulded frame of oval shape, with space outside and inside left quite transparent; the second film has the impression of the tinted ground with light white lines, and white letterings, representing the name of the subject or artist, etc., with transparent space left for subjects of first and third films. This last one bears the portrait, fitting exactly the frame of the first film, but transparent in other parts. Superposed transparencies are printed as usual. The resulting print will possess in high degree the advantage of combination; besides this, the size of the picture gains in magnitude; the small card portrait fills now a 10 by 8 plate without being enlarged. The other portrait shows a different combination, which can be varied without end.

Magic lantern and stereoscopic slides can be also very much improved by the application of the same system. In stereoscopic prints, especially, an important improvement is introduced by adding a stereoscopic transparency of the ornamental frame, which, being taken at the much nearer distance than the principal subject, will appear also much nearer to the observer, enhancing by this means the solid aspect to an extent till now unknown. The same method is applicable to the production of combined negatives, line engravings, or drawings, where insertion of the printed or written inscription for subsequent photo-mechanical printing is self-evident.

### The Construction and Preservation of Plate-holders.\*

BY W. T. BOWERS.

Most manufacturers of plate-holders deem it necessary to put in glass corners silver wire, or something of that sort for plates to rest upon, and they seem to think that it will not do for the plate to touch the holder, except at the corners. This is a great mistake, and the sooner they can be induced to discard glass and all other contrivances in the corners of the plate holders, the better.

There should simply be a ledge of wood for the plate to rest upon, extending all the way round the plate-holder, just as they are made for ferrotype plates.

I know that it has been objected, that if the negative touches the holder except at the corners, there will be danger of impurities flowing from the edge of the plate on to the surface, and producing stains. But such is not the case; on the contrary, the capillary attraction prevents the free solution from flowing from the edge of the plate, and there will be less trouble from that source, than when the plate rests only at the corners. From long experience I know this to be true.

As little glue as possible should be used by the maker in putting plate-holders together. No varnish of any kind should be put upon them, but they should be treated with beeswax, which may be done by heating them by holding them to a hot stove, or putting them in a hot oven, and then rubbing them with the wax. Continue to

<sup>\*</sup> Written for Mosaics, but received too late.

rub the wax on to every part of the holder and slide, till the wood absorbs enough to fill the pores. It would be a good method to put the holders into a dish of hot wax, and let them soak if you have plenty of wax, but with large holders this plan would hardly be practicable. It is something of a job to properly wax a set of plate-holders, but when once done they will last a lifetime. I have them that have been in constant use for a dozen years or more, and apparently they are just as sound and good as when new.

Beeswax is one of the most indestructible substances known. Silver solutions have no more effect upon it than upon glass; it is proof against the action of nearly all the chemicals used by photographers. It has been used, and its value understood, by many photographers for years, but I find that there are many who do not use it, and who do not seem to know how valuable it is. They still continue to varnish their plate-holders in the old way with shellac, which is worse than nothing, or use them till they fall to pieces, with no protection at all. To such I would say, try the beeswax, and you will find that it pays.

### On a Method of Photographing the Defects in Optical Glass

ARISING FROM WANT OF HOMOGENEITY,\*

BY HOWARD GRUBB, M.C.E.

THE best practical method used for detecting in disks of optical glass defects arising from want of homogeneity is possibly well known to many amateurs, as well as professional opticians.

The disk of glass to be examined should be either itself polished to a convex form, or, if that be not convenient, it should be placed in juxtaposition with a piece of glass which is known to be perfect, and of such form as will render the combination of the two of convex power. A small light—say a candle or gas flame—is placed at some little distance, and the eye is placed in the conjugate focus, formed by the lens, of this light. The disk of glass should then appear brilliantly illuminated; but if the pupil of

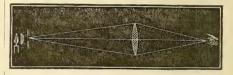
the eye be drawn slightly to one side, so that the pencil of light falls upon only onehalf of the pupil, immediately and most distinctly almost any want of homogeneity is easily seen.

I say "almost any want of homogeneity," because I believe that, with one exception, any kind can be detected; but I have met, very rarely, instances of one peculiar class of this defect which it is not possible to detect till the disk is actually worked into an objective. This happens when a slight, gradual change of density occurs between two portions of the disk with no abrupt line of separation between.

Now this process, though a very simple one to a practiced eye, is by no means so to an uneducated one; and I have often desired a method by which I could graphically represent those faults, so that I might be able to communicate to others my ideas as to their exact forms and appearance, position in the disk, and so forth, and also to form a record of them.

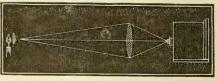
This, by a very simple contrivance, I have succeeded in doing, and I am now able to photograph these defects in optical glass with perfect certainty. A glance at the diagram will suffice to show the principle by which this is effected.

Fig. 1.



The eye, in the first instance (that of eye observation, Fig. 1), is replaced, in the second case, by a photographic camera, and, with a little care in adjusting the image of

Fig. 2



the diaphragm illuminated by the lamp on the diaphragm of the photographic lens, very excellent photographs can be obtained. In fact, the stops of the lens replace the

<sup>\*</sup> Read at the Glasgow Meeting of the British Association.

pupil of the eye, the photographic lens, the crystalline lens, and the sensitized plate the retina.

The defects arising from want of homogeneity in optical glass may be divided into three classes:

- 1. Threads or fine seams of some different quality of glass passing through the otherwise homogeneous disk, sometimes insignificant, sometimes long, but very rarely of any width. These are of little importance.
- 2. Veins, or syrupy bands. These are portions of glass, of differing and various densities, not properly amalgamated. Their appearance is that produced by adding a strong syrupy solution to water. The forms of these veins are frequently very fantastic. This form of defect is sometimes very detrimental.
- 3. Occasionally, but very rarely (only four times in my experience), have I met with disks of glass having a density slightly different in various parts without any well-defined line of demarcation between the different parts. This is most destructive to its performance as an objective, and a most dangerous fault; for, whereas in the two former cases the defect can be easily detected, this third defect defies detection until the disk has been formed into an objective. It is fortunate for opticians that this defect is of such rare occurrence.

### Practical Portrait Photography.

BY WILLIAM HEIGHWAY.

THE above is the title of a little work of which we have already given an editorial notice. Mr. Heighway's introductory contains some excellent suggestions that will benefit old or young who may read them. We make the following extract:

"In a study of photographic literature the reader cannot but be struck with the strange diversity of thought and method in the treatment of almost every detail—chemical or manipulatory—of our art, and the beginner, and not unfrequently the finished scholar, in trying to follow out the theories and advice of these teachers, has been thrown into a very undesirable state of 'fog,' from whence to extricate himself he has been forced to take charge of the helm

for himself, if his knowledge was sufficient, or, as is not seldom the result, to give up in despair. There is, of course, as those who have succeeded know well enough, a great deal that must be studied individually, and a point where the best book ever written as an ally deserts one. A feeling of independence and spirit of self-reliance are indispensable to the student who would excel.

"While success is the reward of patience and studious research, there are still the majority who will ever remain in the rank and file, who will ever need counsel and advice; and for these it is necessary to provide simple and intelligible rules of working, and the formation of formulæ by which, in following, they may overstep the discouraging impediments which beset the first steps of progress in our art. It shall be my endeavor, in placing these before the reader, to do so in as simple language as possible, without any mystifying technicality, and with just sufficient theory to explain why each manipulation is conducted, and so let the student pursue a course, not because it is so set down, but intelligently, as a means to a certain end, the which he fully understands. This plan, it appears to me, is not only one called for by intelligent pupils, but a simplification of tuition. First, what has to be done-that understood, how it can be done-and why the means adopted are the best.

"I propose, as my plan, to take the reader by the hand, and conduct him step by step through the various manipulations and processes, just as if he were a pupil in a gallery; to fight his way, as the writer has done, from glass cleaning, where he learns his first great lesson that

NOTHING CAN BE DONE TOO THOROUGHLY!

He will then be introduced to the dark-room, and its construction explained. The chemicals will next be brought under his notice, and their use and properties explained, in order that his dark-room manipulations may not be gropings in the dark indeed. Here I shall take advantage of the opportunity of impressing on the reader, that whatever may be of service in these pages, may be rendered of no service to the reader who, after a careless perusal, throws

it aside, or by a loose and inefficient method of practicing the directions here set down, or a slovenly and dirty manipulation.

#### PRECISION

is absolutely necessary. How is it possible to judge the effect of a formula without a strict adherence to the quantities and directions set down? How often we see an operator, in the perusal of a book or journal of his art, come upon a formula which promises well; say a developer, than which there is hardly a more delicate agent, liable as it is to variation by heat or cold or any trifling change in the proportions of the ingredients. In consequence of his discovery of a new developer, he takes his iron, perhaps kept in a brown-paper bag which has burst, or in an imperfectly-stoppered bottle, and is, consequently, so oxidized as to have assumed a rusty-gray powdery appearance. In weighing out an ounce, he may put in an extra crystal. He solaces himself with the thought, 'that just turns the scale,' and proceeds in like haphazard manner to measure out his acid. Water he scarcely thinks worth taking the trouble to measure. He feels satisfied, and with a too easy conscience proceeds to try this thoroughly original developer. If it answers, he feels pleased, and a glow of self-satisfaction comes over him; but reproduce it he cannot! Or if, as is most likely to be the case, it does not answer his expectations, and the promises made for the developer he has not made up are not realized, he throws it away with the angry remark, 'I never did learn anything from these books-shan't try any of their formulæ again,' which is a very wise determination to come to in such a case.

"But it may happen that he may have taken every care as regards the proportions of the solutions, weighed and measured them out with exact nicety; but he is not a believer in that principal of photographic virtues,

### CLEANLINESS.

Some foreign substance has been mixed up with the solution, caught up with the iron, organic matter in his bottles, or from his finger. Then, in the test, the collodionized plate is stained with marks of his dirty fingers; he throws a quantity of the developer

over the plate, allowing most of it to spill into the sink, carrying with it most of the silver from the plate, the retention of which is so necessary to a proper determination of the value of the formula—indeed of beauty of the negative—and the result is stains,

streaks, spots-and disgust.

"You cannot too early or too thoroughly learn these two cardinal virtues of precision and cleanliness. It is observable in every movement of the first-rate operator: the neatness of his person as far as the nature of his work will permit, and in the order, cleanliness, and readiness of every camera, lens, chemical, bath, solution, and what not under his care; and the neatness of the reception, operating, and dark-rooms-these are the evidences; the result is perfection. I do not by any means intend to say that a clean and careful operator is always a clever one; but with these qualities he is always at his best, while the talented slovenly man is at his worst. Even if it does sometimes appear that an admired worker in the darkroom or printing department is not as painstaking as he might be, this is more apparent than real, for some of the hard rules are of necessity relaxed by the master of his busi-

"Cameras should always be ready for use, free from dust, and in good repair. Spare lenses should be placed where they are not liable to get injured. The posing chairs and accessories of the glass house, kept free from dust and stains, last longer, and present a better appearance to the sitters. When necessary to move a chair, background, or head-rest, it can be done as expeditiously quietly, as with a great noise and racket, which not only annoy your customers, but destroy your property.

"Order and neatness should reign in the chemical room, and are observable in the arrangement and legible labelling of all bottles and other vessels. Funnels should be kept clean and to their proper uses, and the filtering-paper ready at hand. In the dark-room, which has generally to serve as a chemical room also—though this should not be if it is possible to set aside a separate apartment for the reception of chemicals—there is great scope for the display of neatness and convenience of arrangement. The

carriers should stand near the silver bath, which should be kept well covered when not in use, to preserve it from dust.

"On a shelf over or beside the sink should be kept the developing solution and glass, free from dirt and crystals of iron, which will collect round its sides if it is not constantly cleaned. From this cause alone many negatives have been ruined. The collodion bottles, handily placed, ought to be well looked after; the lip of each bottle on which the collodion collects should be wiped each time after using, thus guarding against many of the spots and stains which so trouble operators. Above all, the floor of the dark-room ought to be very clean (mopped out every morning) that, in moving about, the operator does not raise a cloud of dust, the particles of which find their way into bottles and solutions, on to coated plates, and create mischief in a thousand and one ways. Order and cleanliness, in short, should reign supreme.

"I am sure no thoughtful reader needs further examples of the mischief done by the neglect of these rules. If the consequences in his own business are not serious enough, let him think of the effect of an overdose of a drug by a chemist in making up a prescription, and in many other ways he may think of in a moment, and let him take the lesson to heart.

"I hope this little sermonette has not been preached in vain, but that its lesson will show its work as we go on with our studies. The dark-room work mastered, as far as it can be at this early stage, the student will be introduced to the glass house, to learn its construction, the effect of light on the salts of silver, lighting the figure, and the general work of this department, with a few hints on artistic posing.

"On this head I shall be content to give only some general rules, leaving the higher perfection of the student to his own knowledge of art, and many splendid works already written on the subject—notably Mr. Robinson's book on *Pictorial Effect in Photography*, which every photographer with ambition to excel ought to possess.

"Printing the negative will next engage the attention of the reader; but in this, as indeed in most of the manipulations and processes of our art, practice is the great thing necessary. It is much easier to explain orally, and show the pupil how to do a thing, than it is to write plain and understandable instructions; and it is in this respect that all books of instruction in our art fail to a very great extent."

### New Method of Lighting the Studio.\*

A Paper presented to the Academy of Sciences and the French Photographic Society, by D. Scotellari, Photographer.

The question of the rapidity of the time of exposure being of the greatest importance to photographers, I have the honor to submit to your kind attention the following abstract, which treats of the photo-chemical sensibility, called true light and artificial photogenic light, applicable to the art of photography. In the interest of science and art, I indulge in the hope that photographers, who are particularly interested, will study the immense advantages resulting from it.

The violet rays of the solar spectrum having more than all others chemical properties, and being the rays containing the least caloric, I have conceived the idea of applying this tint to the glass of the studio, and thus avoiding the other rays which are injurious or useless. For this, without having recourse to violet glass, which would be much too costly and which besides would lack uniformity of tint, I content myself with covering the ordinary glass with a tinted varnish of my own composition, and I substitute violet curtains for all others.

I will refer succinctly here to the scientific experiments upon which I have based my system of lighting.

Luminous Power; Experiments of Draper, Proving that Violet Surfaces reflect the Maximum Light that they receive.

According to the experiments of Fraunhofer and Herschel, it is in the yellow that is to be found the maximum of the intensity of light, and it is in the violet that we find the minimum; but, according to the experi-

<sup>\*</sup> From the Moniteur de la Photographie, November 16th.

ments of Scheele, it is violet light that has the maximum of chemical intensity.

The luminous portion of the spectrum which we are now considering is only produced within certain limits of the undulations of ether, for we know that for violet the undulations reach 728 millions of millions per second, and for the red 496 millions of millions only.

Chemical Power of the Spectrum; Experiments of Stokes.

In a great number of phenomena light cets as a chemical agent would do. For example, protochloride of mercury and the chloride of silver become black by the action of light, diaphanous phosphorus becomes opaque. Nevertheless, the different colors of the spectrum do not have the same chemical action, and as we have just said, it was Scheele who was the first-to observe, in 1770, that the chloride of silver exposed to the light acquires a violet tint, and he discovered that it was the violet of the spectrum especially which produces this effect.

Mr. Trat, a skilful chemist of Bordeaux, who assisted at my experiments, has judged them as follows:

1st. That violet light acts much more rapidly than white or blue light, which diminishes about one-half the time of exposure.

2d. That owing to the homogeneousness of the tint thrown on the face, the negatives are better and hardly require any retouching.

3d. That in regard to the faithfulness of the likeness, certain persons who are very impressionable in ordinary light, are not so at all under the exclusive influence of the violet rays; the likeness obtained therefore is perfect, the visage being more calm.

4th. That, in an artistic point of view, photographs made under the violet rays exclusively are much better modelled, have more details in the light parts and more strength in the shadows, so that the portraits present a remarkable finish, much superior to that obtained by the ordinary processes.

These practical facts, the importance of which must strike every one, agree perfectly, moreover, with the general scientific data on this subject, and in particular with the beautiful experiments made to determine the action exercised by the violet rays, the only ones that are chemically active upon the mixture of chlorine and hydregen on the metallic chlorides used in photography.

### PHOTOGRAPHIC NEWS.

The American Photographic Society of New York seems to have taken up the carbon process with great earnestness, and some very sage discussions will follow. Mr. Chapman, one of its advocates, made the remark, that "if the negatives used were perfectly black, no impression could be made, though it be exposed for a month." We hope our readers who do not believe this will try the experiment with a "black" negative, and let us see what they get.

The Munich Exhibition of Art and Industry, recently held, has developed some new names in the graphical line. Pyrography produces pictures which resemble large drawings upon wood, burnt in by means of the burning glass, and they are intended for the decoration of panels. Eidographs are reliefs produced by some peculiar process, and consist, first, of plates of material not known in very high relief, and, secondly, of others in which the lines are sunk much deeper than in ordinary etched plates.

PHOTOGRAPHIC JURIES .- Reform is certainly necessary among those who have charge of exhibitions, in the matter of the appointments of photographic jurors. The appointments of jurors seem to be made more with a desire to give honorable position to the friends of the managers of the exhibition, than to secure those who are experts in the profession. This was lamentably the fact in our own International Exhibition, where the only party at all posted in the matter of photography on the jury was our friend Dr. Vogel, and where not a single practical working photographer was on the jury at all. The effect of this was to throw the burden of the work upon Dr. Vogel, whose nominations for awards were afterwards tossed aside and altered, so he says, much to his chagrin and to that of the expectant ones. A similar occurrence has

taken place at the Munich Exhibition, where not a single professional photographer was on the jury. Let us hope for better things hereafter.

A German Photographer recommends masters in photography to agree amongst themselves to employ no assistant who cannot show a letter from his last employer, testifying that he has not omitted to give proper notice, as the only way by which masters can grapple with the ever-increasing evil of trained hands leaving their work at a moment's notice. This is a good suggestion. Master photographers themselves, however, are not the only ones who are offended against; they frequently discharge trained operators for a few excuses without notice, thus causing very often much suffering.

Again, the master photographer should reform himself in the matter of courtesy towards his fellow professors in making it his rule never, under any circumstances, to offer inducements to anybody else's help to break an engagement for the purpose of obtaining such help himself. This is too often done, and the trained assistant is often more sinned against than sinning.

HERR MICHEWSKY, of Dantzig, at a late meeting of the Berlin Photographic Society, said that he had a long time tried to get rich folds with a thin silk curtain, but always without success, until he lined it with hair-cloth gauze, when he was so delighted and astonished at the beauty of the result, that he could not refrain from imparting the idea to his professional brethren. Mr. Hartman remarked that a heavy silky stuff, lined with a stiff lining, made a much more suitable material for studio curtains than woollen stuff. At the same meeting, Dr. Vogel exhibited four photographic views of the interior of Photographic Hall, from the negatives which illustrated the late number of this magazine.

A "RED-HOT" explosion, second only to that which recently occurred at Hell Gate, is about to take place soon, or may already have taken place before this reaches our readers, at St. Louis. This we gather from the announcement before us that our old friend Fitzgibbon has for some months been blasting in his usual cursory style, and undermining and setting his fuses, and arranging his batteries for the issue of the St. Louis Practical Photographer. The instrument which is to cause the explosion, we believe is to be touched at the momentous period by one of his grandchildren. We certainly wish our contemporary may have an easier life of it than we have had for the last thirteen years, and a more profitable one. He says he has nothing to lose, and we suppose this is a hint beforehand to such parties as Mr. Shaw and Mr. Wing, who are always looking after photographers with full pockets. If Mr. Fitzgibbon succeeds as well as General Newton has-and we hope he may-he will have much to congratulate himself upon, and that his bravery is more than equal to that of General Newton, the hero of Hell Gate, nobody will doubt. The other gentlemen whose names we have mentioned will please take notice.

Mr. Johnson, of London, is causing some little excitement by the introduction of a new salt, the composition of which thus far is a secret, which is very similar in character to ammonio-nitrate of silver. He claims that it may be used with albumen paper to great advantage, and that it is much superior to a plain silver solution. One of the chief peculiarities of the salt which Mr. Johnson proposes to use, is its solvent action upon the albumen film. Under ordinary circumstances, contact with alcohol or nitrate of silver produces coagulation of soluble albumen. But Mr. Johnson claims that by using his double salt. not only is the albumen not rendered insoluble by the action of the silver, but a very considerable quantity can be introduced in collodion without coagulation. We shall, doubtless, be given an opportunity to test the matter shortly.

WE have received a copy of the *Photographische Monats Blätter*, an official organ of the Rhenish Westphalians, for the cultivation of photography and the allied arts, published at Frankfort-on-the-Main, under the editorship of Dr. C. Schleussner and T. H. Voight; it is embellished by a Lichtdruck picture of very fair quality.

Mr. Conrad Petersen, in the *Photographische Archiv*, gives the following formula for his silver bath, which he says works in one-third of the time required by the usual nitrate bath, as follows:

THE Centennial Photographic Company are to continue their business in their studio on the International Exhibition grounds, where their valuable stock of negatives will continue to be printed, and where nearly one hundred employés are still busily engaged. The number of views which have been sold by this Company is something astonishing. Their sale continues almost as largely as ever, only the business of the Company has changed from a retail one to parties who visited the Exhibition, to the supplying of the dealers all over the country, whose orders they now solicit, and are ready to supply promptly. Mr. W. Irving Adams and Edward L. Wilson are now the sole proprietors of the works. They purchased the interest of Messrs. Notman and Fraser early in October last, and have no business connection with those gentlemen whatever; neither have they had any business connection with them in any of their enterprises except as co-capitalists in the stock of the aforesaid Company. Photographers all over the country could sell the beautiful variety of views made by this Company, if they have sufficient enterprise to push them aright; there is scarcely a limit to the sale which could be made of them; and no opportunity to photograph the beautiful things of this world was ever before given, such as has been accorded to, and taken advantage of by, the Centennial Photographic Company, which, from the beginning, has been under the general superintendence of our Mr. Edward L. Wilson.

#### SOCIETY GOSSIP.

PHILADELPHIA PHOTOGRAPHIC SOCIETY.—Stated meeting, Thursday, December 7th, 1876, the President, John C. Browne, in the chair.

The minutes of last meeting were read and approved.

The report of the chairman of the Committee on Fund for Outdoor Meetings was read and accepted, and the committee discharged.

The resignation of Mr. William H. Smith, Jr., was read and accepted.

Mr. Carbutt presented a number of interesting stereo slides, made by Mr. Payne, of Los Angeles, Cal.

On motion, Resolved, That the thanks of the Society be tendered to Mr. Payne for his donation.

The Secretary read a paper by Mr. George Sibbald, of East New Market, Md., on the Magic Lantern.

At the request of one of the members, Mr. Clemmons gave an interesting account of the manner in which he successfully albumenized a single sheet of paper, measuring 10 feet 7 inches by 20 inches, which was afterwards used for a mammoth print of the Centennial Grounds from George's Hill. A wooden dish was constructed, 111 feet long by 273 inches wide; this was first painted white inside, then coated with shellac and finally waxed, pure beeswax being well rubbed into the seams by means of a large piece of cork. The salted albumen was now poured in, covering the bottom to the depth of about 3 ths of an inch all over, and it required the whites of 125 dozen eggs. The paper, after being floated, was carefully lifted off by two persons, and secured to a long pole by its upper edge, galvanized iron tacks being used for this purpose Seven different negatives, each 18 x 22 inches, were used in the printing, the edge of each being blended with care into that of its fellow. For making the negatives, the back combination of a 21-inch Ross symmetrical lens (42 inches focus) was found to be the only lens at hand giving the required field and definition. Photographed by F. Gutekunst, Esq.

Mr. Carbutt exhibited two very beautiful landscapes by Mr. Payne Jennings, of Dublin.

The President exhibited a polychrome portrait, by Braun, of Dornach.

The Secretary exhibited some stereo slides, made by himself, in the Garden of the Petit Trianon, Versailles, France. Also a fine photo-engraving by the Rousselon process, entitled "Repose at the Farm."

The Secretary also exhibited an improved form of field-bath, made of pure guttapercha, and mounted in a wooden case with reversible top, according to a plan lately proposed by Mr. Zentmayer, of this city.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

### PHOTOGRAPHIC SOCIETIES.

Some one asks: "What has become of our photographic societies?" We can only echo the question, and pause for a reply. The time was when organization or association was not thought of among photographers, but each one moved in his own narrow circle, with more or less feeling of jealousy towards every other person practicing the same profession. But common interests, and in some cases common suffering, led them to look to each other for mutual help and protection. The result was the formation of societies in nearly all our large cities, and at the same time the organization of the National Photographic Association. For several years all flourished, and the progress of our art was never so great as during this period of activity of the national and local associations. Views were freely interchanged, valuable papers were read, important topics discussed, and the members everywhere seemed to vie with each other in contributing of their knowledge and experience for the general good.

But all this seems to be changed. Either the depression in business has cooled the enthusiasm of photographers, or else they have exhausted their resources. The latter we cannot think is the case, because our art was never more prolific in processes for experiment, or offered a greater variety of subjects for discussion, than at the present time. A lethargy seems to have fallen upon our American photographers; both local and national associations, with two or three exceptions, have subsided into inaction, and again we are disposed to ask, "What has become of them?"

The National Association has been in a decline for the past two years, and many

speculations have been indulged in to explain the cause; but we believe it can be attributed to no special circumstances of official action, meetings or no meetings, but rests entirely with the members themselves, whose indifference may be caused by the absence of some pressing necessity which compels them to seek protection or redress. However this may be, we are to look for the initiation of this decline in the local societies. Mr. A. S. Southworth. in one of his characteristic addresses before the Convention in Judges' Hall, said, "The National Association must rest upon local If there are no local societies in the country, we shall have no general society." This we believe to be true, and it is fast becoming verified. From most of our local societies we have no reports; either they have ceased to exist, or their proceedings furnish nothing worth reporting.

We regret this state of things, as we know how much good has been done by photographers meeting together, and each trying to do something to promote the interests of the whole.

The desire for improvement and acquisition of knowledge, the working out of new processes, and the love of our beautiful art, should be sufficient to bring together for counsel and encouragement, in monthly meetings, the photographers in every city and town in the country. A photographic association should not be an organization merely for defence, or the outgrowth of some dangerous emergency, for when the danger is past the society declines; but it should be based on the higher motives of artistic study and improvement, and thus, with living principles for its foundation, it will have in it the elements of a permanent life.

We would respectfully suggest to the active photographers throughout the country that they make an effort to revive every association that has ever been organized, and where there has never been any to start new ones. Our English brethren are setting us a good example in the renewed interest manifested in their societies. Among them there seems to be a stirring, wholesome activity, and if our American photographers permit their associations to

languish, we fear it will not be long before they will find themselves fast receding from the high position which the past year has shown them to hold before the world.

As it has been truly said that the best method to preserve peace is to be prepared for war, so the best way for photographers to protect themselves against process venders and patent-rights men, is to be organized; and we believe no better means of preventing imposition could be adopted, than that all new processes should be submitted to a reliable committee, to whom its working should be explained sufficiently to satisfy them of its practical value or utility, before any photographer would buy it. In this way the members would be protected, as no man would venture to submit a process he might have for sale to such a test as this, unless he was quite sure he had a good thing.

We trust that this matter will be taken into consideration, and an effort made to infuse new life into the fraternity, by reviving, if possible, the local societies, and by doing this, resuscitate the National Photographic Association itself. And we would also request the secretaries of societies to send us reports of their meetings, so that whatever transpires, or is produced, that would be of general interest, may be given for the benefit of all.

We feel that this question of organization is one that vitally affects the progress of our art, and photographers cannot afford to disregard it. We are willing to give all the help and encouragement we can to any efforts in this direction, and believe, if it is taken hold of in earnest, we can soon have prosperous, wide-awake societies all over the country.

#### ABOUT THE LAMBERTYPE.

EDITOR PHILADELPHIA PHOTOGRAPHER.

DEAR SIE: I do not quite understand your attitude toward the carbon process as introduced here by Mr. Lambert, and somewhat severely commented on in your last issue, and I crave permission to make a few remarks that I trust will appear in every sense pertinent, and in no sense impertinent.

I have always understood you to advocate

the introduction of carbon printing, calling it the "process of the future," and never hinting a word of doubt about its usefulness and practical success if American photographers would only have enterprise enough to adopt it.

You have recommended and sold books teaching the carbon process, and have said it was the duty of photographers to use it, from its greater promise of permanency. From the instruction thus received I was prepared to adopt it as soon as offered in shape of a definite process, introduced broadly enough to create a general demand for permanent work. Let me ask:

- 1. If you have never believed that carbon printing could be used profitably in *this* country, why has no hint to that effect ever appeared in your pages previous to Mr. Lambert's arrival?
- 2. If you believed or knew that Mr. Lambert's patents were worthless, why had no caution to that effect appeared during the two years he was operating in Europe, with frequent announcements that he should shortly arrive here?
- 3. If Mr. Lambert offered repeatedly to demonstrate his process before you, immediately after his arrival in this country, does not that indicate at least that he believed in his own process, and was not afraid of scrutiny? Was it not somewhat your duty to your subscribers, to have seen, at that time, what he had to show, and then give them your honest opinion of its merits or demerits?
- 4. You certainly cannot expect much credit for watching over their interests, when six months later, after the damage is all done, if damage there be, you come out and seek to discredit the process in a way to injure your most enterprising readers, who bought what they believed to be a good thing in accordance with your previous teaching. You certainly would not praise the watch dog who laid still and only growled while the robber was getting in, but who began to bark loudly when the thief was retreating in safety with his plunder.

I have a license of Mr. Lambert, having received the fifth he issued in this country, and while I have as yet made no use of

carbon printing for positives, I feel amply repaid for my outlay by use of the enlarging and Lambertype retouching process. And I feel sure that carbon printing in some form will be used; I believe it is "the process of the future."

And Mr. Lambert, by introducing it simultaneously among the most progressive photographers over the country, and arranging to furnish them materials of known and approved quality, with personal instructions to each purchaser, besides the use of five distinct patents, gives them more value for their money than was ever heretofore given under any photographic patent in the United States.

If not, why not?

Yours, very respectfully, E. K. Hough.

NEW YORK, December 14th, 1876.

We are very glad to give our correspondent an opportunity to ventilate himself so fully, and very cheerfully answer his inquiries.

We are quite sure, however, that he has not carefully scanned the recent volumes of this magazine, but has been reviewing the old ones, with a disposition too willing to believe everything that is claimed by any process vender who may come along; a disposition by no means peculiar to himself, but one which prevails among American photographers.

We freely acknowledge that we did, nearly ten years ago, advocate the carbon process, because of the beauty of its results and their permanency, but are we to suppose, or does Mr. Hough suppose, or does anybody suppose, that everybody is not entitled to the privilege of a change of opinion, the more so when we see a great nation like England, whence came the carbon process, changing her opinion? And that we are not also entitled to a change of opinion when we find that we are wrong?

We did take up the carbon process when first introduced into this country most enthusiastically, and we practically worked it with our own hands in all its details. Moreover, we invested a very large sum of money in it, and the further we plunged into the matter, the more we became con-

vinced that any process based upon gelatin could not be successfully worked in this climate all the year round, hot or cold; this we have stated over and over again, and neither Mr. Hough nor any one else can claim that we have led them into an investment in that direction by not stating it.

The work on carbon processes which Mr. Hough alludes to was published in 1868, since which time, and a long time ago, our opinion as to the working of that process in this country was changed, and since which time we have visited all the large carbon establishments in Europe, carefully inspected them, and largely examined the whys and wherefores of the non-success of the process in America.

We think we stated our conclusions in our letters written, either from Europe, or shortly after our return. If Mr. Hough feels he has been a victim, it must have been because he neglected to read what was at his hands.

Now in answer to Mr. Hough's queries.

- 1. See remarks above.
- 2. We have not said that Mr. Lambert's processes were worthless, and we could not say all that we have said about them until we were fully satisfied that we were right, and of this we could not convince ourselves earlier.
- 3. We did not say that Mr. Lambert wished to demonstrate his process before us, and we do not think that he meant to do any such thing. His purpose was to secure our influence, and to arrange for advertising in our magazine, as was stated in his letter; this we could not allow, because of our disbelief in his claims.
- 4. So far as Mr. Hough is concerned, perhaps the damage is "all done." Such cautions as were given in our last number are not specially intended for gentlemen of such talent and ability as Mr. Hough, but rather for those who have not such ample opportunity for posting themselves as he has, yet that all might hear both sides. He would not expect a dog to bark, if he was a good dog, until he saw something worth barking at; there are different kinds of dogs; some take hold without any previous remarks, others spoil everything by the noise they make.

We are quite willing to let our readers know of Mr. Hough's opinion of his purchase, and as he is one of our most valued correspondents, we are glad to give Mr. Lambert all the benefit which the said opinion is worth, and to ask Mr. Hough especially to compete for the medal offered in our last number. As to Mr. Hough's belief concerning the process of the future, it is backed up by Mr. Rowell, who has practically worked carbon for eight years, than whom no more excellent man and photographer lives in the profession, in his communication in our March number of last year, and we are quite willing that they should have all the followers they can gather, only it is our duty to say that our experience differs from theirs; it is our duty to write what we believe. And now as to

Mr. Lambert's Five Patents .- Mr. Lambert offers to his licensees the right to work under five patents as follows: No. 61,368, given to Mr. Swan for his carbon process; No. 92,836, given to Mr. Johnson for a modification of the Swan process; No. 153,577, granted Mr. Lambert for improvements in methods of retouching negatives; No. 171,392, granted Mr. Lambert for improvement in carbon photographs; and No. 173,547, granted Mr. Lambert for improvement in photographic printing-frames. The Swan and Johnson processes have been made familiar to our readers by our former publications. The patent for improvement in retouching is described by Mr. Lambert in his patent specifications, from which we quote as follows:

"This invention relates to a method of improving or retouching photographic negatives, whether such are taken from nature, or are enlarged reproductions, whereby all retouching of the positive proof on paper is rendered unnecessary.

"In all processes of the kind heretofore practiced, it has been usual to operate either on the positive-paper print or on the varnished film of collodion constituting the negative from which the positive proofs are obtained. This method is tedious and expensive, especially when operating on a picture reproduced and considerably enlarged, and more particularly in the case of portraits, in which the grain of the paper be-

comes coarser the greater the enlargement. Moreover, it can only be performed by experienced artists, whereas, by the improved method of this invention, this treatment is considerably simplified. The following is a description of the improved process:

"The negative of large dimensions is first obtained by salts of silver, or carbon and salts of chromium, in the ordinary manner now in use. If an enlargement, this may be obtained directly from a small positive-paper picture, or from a positive proof by transparency (i. e., to be apparent through a glass, and not by reflection), obtained from the small negative either with salts of silver, or, which is preferable, with salts of chromium especially prepared for the purpose.

"The large negative may be produced in an ordinary camera of large dimensions; but I prefer the dark-room for the purpose, as it permits of overlooking the picture and making any modifications deemed desirable, as will hereinafter appear.

"The large negative, after having been properly exposed, developed, fixed, and finished, is covered on both sides with a sheet of thin paper specially prepared for the purpose, or any other semi-transparent material capable of retaining the coloring matter to be afterward employed. I, however, prefer this special prepared paper of a particular grain, because, when placed on either side of the negative, it has the effect of neutralizing, by its optical combination, the defects due to the material of which it is composed, and which, separately, exhibits an exceedingly coarse grain. This novel application alone will, in a great measure, attenuate the grain, which is always apparent in photographic reproductions from pictures on paper.

"It is by acting on these two surfaces covering and inclosing the negative that the picture printed from the latter may be improved or retouched in an extremely simple and easy manner, which consists in applying wherever necessary, either on the collodion side or on the reverse side, an impalpable galvanoplastic powder, or other finely pulverized substance answering the same purpose. This powder is most conveniently applied with a stump. By this

means, a negative wanting in vigor or harmony may, in a few moments, be strengthened and have imparted to it all the softness and the effect of most carefully stumped drawing. Moreover, the effects of light and shade may be modified, toned, or heightened, and such a high degree of finish imparted as will render any subsequent retouching of the positive-paper print unnecessary, the sharpness of the lines being restored by the aid of a lead-pencil. This treatment may be performed in a few minutes, even for very large surfaces, and by persons completely inexperienced in the art of retouching pictures.

"The negative, after thus being treated, is placed in the pressure-frame with a sheet of ordinary sensitized paper, prepared either with salts of silver or of chromium, to obtain a perfect positive.

"Should the lines of the negative be too sharp or well defined, more especially in the case of large pictures, they may be softened in the positive proof by first partially printing it, say three-fourths of the time, in contact with the large negative, and then completing the impression after having interposed a sheet of very thin glass between the negative and the paper; or a sheet of any other thin transparent material may be substituted for the glass.

"The complete or partial transformation of the backgrounds, as well as of draperies, hair, dress, or any part requiring to be modified, may be readily obtained in the following manner: On the positive image, obtained as previously described, is applied a sheet of extra thin glass, on which the outline of the subject is traced at a distance of, say, one-twenty-fifth of an inch from the true outlines to be protected from the action of light. On the mask cut out of yellow paper is then placed another glass of the same dimensions, on which the outlines are similarly traced, but in this case about onetwelfth of an inch within. In this manner, the optional effect, or the effect of light on an opaque shadow-forming point, is obtained without showing the lines of demarcation, and the background may be toned to harmonize with the subject.

"A plain or graduated background may, by the same means, be replaced by any

other subject, such as a landscape, interior or other adjunct, and vice versa.

"The process herein described may be applied to positives, by transparency, of all dimensions, which, after being thus treated, will serve for the reproduction of negatives requiring no further retouching.

"I claim-

"The process herein described of retouching photographic negatives and positives to print from, consisting essentially of the application of a translucent sheet on each side of a negative or positive, previously rendered transparent, and applying to the surfaces thereof an impalpable powder, substantially in the manner and for the purpose set forth.

"CLAUDE LÉON LAMBERT."

The patent for improvement in carbon photographs consists, first, in obtaining intensity for negatives obtained from transparent positives by immersing them in a solution composed of eleven ounces of water, fifteen grains of sugar, one drop of liquid ammonia, and a half drop of permanganate of potash; and second, the process of obtaining double-tinted prints in salts of chromium and on ordinary albumenized paper, by placing a sensitized paper in a press, the blank for the picture being covered with a blank or yellow mask, and the whole being then precipitated by hyposulphite of soda. Further details we quote from the specification papers, viz.:

"As a preparatory step in carrying out the invention, I take a glass plate, upon which I first apply a greasy coating, and then a layer of normal collodion, after which I immerse it in cold water. I then remove from the printing-frames the pigmented papers, and apply one on the coated glass plate, but while the plate is still in the bath. I then remove both togetherglass and paper-and subject it to slight pressure for a few minutes, after which I immerse in warm water, and develop the positive print, which, according to the length of exposure, will make either a transparency or a picture seen by reflected light. It is upon this latter feature (the picture seen by reflected light) that the invention is based.

"The positive picture having been thus developed, I then only have to immerse it in a bath containing from ten to fifteen per cent. of gelatin in solution, and to apply the card upon which the photograph is to be mounted, and which is also passed through this bath. The picture is then allowed to dry completely, and the image is then detached, and remains as brilliant and glossy as the glass with which it was in contact. This brilliancy is not produced by a layer of gelatin, but by the image itself, which is completely insoluble, and will, consequently, bear considerable friction, and may even be wetted without affecting its appearance or durability.

"By the above process I obtain an image which is, in fact, unalterable, and which is itself preserved by an almost unattackable body (insoluble bichromated gelatin), i. e., the picture itself, and which is obtained in its true aspect, that is to say, non-reversed. Thus, in practice, it will not be necessary to have two poses to produce a pendant, that is to say, two portraits of persons face to face.

"The gradual strengthening which I apply to the salts of chromium consists of a solution of eleven ounces (three hundred grammes) of water, one drop of liquid ammonia, and fifteen grains (1 gramme) of sugar, in addition to which is added, according to the desired intensity of the negative, a few drops of saturated solution of permanganate of potassa. The negative obtained from a transparent positive is then placed in a bath containing the above solution, and, if it is desired to obtain still greater intensity, some more saturated permanganate of potassa is added. The negative, thus strengthened, will produce prints of the same quality as would the original negative. In this manner, also, transparent positives may be intensified, in order to impart greater brilliancy to the negative to be obtained therefrom.

"To obtain prints in salts of chromium on ordinary albumenized paper, with borders in a scale of different tints, which contrast with that of the picture, I take ordinary albumenized paper of any quality, and expose it to light after sensitizing; then place it in the press, taking care to preserve a blank for the picture, with a black or yel-

low mask, and in this manner obtain an impression from a negative of any ornamental border, with a blank space reserved for the picture. I then precipitate it with hyposulphite, and fix as in ordinary cases, and, if necessary, apply it to my oval or square photographs. I thus obtain tints which harmonize perfectly, one for the picture, and the other for the border."

The improvement in printing-frames consists in a printing-frame for making positive proofs, the casing of which has openings covered with glass of the size and especial outlines of the picture, on which glass openings the paper is placed. This printing-frame can be used for printing the outer edges or borders of the pictures, and for printing names or emblems on the same. The examination of the specifications above will enable our readers to understand more intelligently the instructions given by Mr. Lambert, as published in our last number.

Our publication last month seems to have awakened the ire of Mr. Dwight, who was alluded to, and from him we have received the following letter:

DETROIT, MICH., December 15th, 1876.

DEAR SIR: The letter over my name and the quotations as published did not come from my pen, having been altered both in form and signification, and where in any degree correct, were but the quotations of the opinions and language of others, and expressly stated as such; and the silly transparent lies with which your informant accompanied them would not have taken in any intelligent man not already blinded by anger; they are too thin, and he acknowledged some time since, in the presence of M. C. Lewis, of Des Moines, and C. C. McManus, of Nevada, Story County, Iowa, that he received the specimens promptly on his first application, and that his second was not properly directed. I heartily join with you in your appeal to those who are working the Lambert patents to come out, and express their honest views, for I am satisfied that it would be the best advertisement possible for us. You gave ready publicity to the slander; I trust you will do the same to my reply.

Respectfully yours, etc.,

M. C. DWIGHT.

We are always very willing to correct any mistakes we have made, but would say in answer to this, that we have the original written by Mr. Dwight to our correspondent. We published it verbatim, and we do not see any of the quotations to which he alludes in his letter. In the same mail, however, came a letter from our correspondent, in which he states that, after receiving the box with nothing in, he did receive a chromotype; but he never received the \$1.00, or the letter, or the Lambertype. As this is a personal matter between themselves, we have no desire to go further into that. Now, as to our action in this matter, it is wholly brought about by the desire to prevent our patrons from parting with their money for what might prove to them of no avail, until they could get information on both sides. We are quite willing to be convinced that we are wrong, and have given the licensees of the Lambert process the fairest sort of a chance to show that we are wrong, and any communication sent us, fairly written with that thing in view, we shall be glad to publish. With the challenges in his face, as given on page 376 of our last number, Mr. Dwight gives us no information whatever, nor offers to print us a picture, neither has any other licensee, and we can only state that the challenge is repeated.

We hereby disclaim any motive whatever than a sincere desire to benefit our patrons, and no one can prove otherwise. We are sincere in our offer as well as in our desire to improve photography, and we mean what we say, so that none may feel any delicacy in taking us up.

Since writing the above, several of Mr. Lambert's licensees have been heard from, and we quote what is said by those whose opinion has not been in print before, and who are not his agents, as follows:

Mr. A. Hesler of Evanston, Illinois, says, "You may think carbon a poor investment, but so far this month it has paid me in pictures sold and paid for \$200, and has been the means of largely increasing the silver-print trade."

Mr. A. S. Barber, one of the agents of Mr. Lambert, writes from Geneva, N. Y., as follows: "I have made chromotypes in

Hartford, Conn., and did not experience as many failures as might be expected in silver printing. In my honest judgment the chromotypes were fully equal to silver prints. They were pronounced by three photographers of Hartford better than could be made from the same negatives by the silver process. I have also demonstrated the processes in Utica and Geneva, N. Y., and can honestly say that I have experienced less trouble, and have made fewer bad prints than would have occurred in silver printing under the same circumstances."

Neither of these gentlemen seem, however, to take to our offer to print a picture for our magazine. If the process is as easy as they say, what hinders them from accepting our offer, when we are quite willing to pay them as much for the prints as we pay for silver printing?

We have also received Anthony's Bulletin for December, in which Mr. Lambert, by the combined help of his New York agent and their staff of employés, replies to the article on his processes in our last number, and states that the description of them is correct in every respect. Good!

### GERMAN CORRESPONDENCE.

Centennial Awards—The Paris World's Exhibition—Causes of Stagnation in Business—Unclean Bristols—Carey Lea's Objections—Lead Strengthening, and Eder & Toth.

BERLIN, November 30th, 1876.

I READ in your worthy journal of "Much Disappointment over the Centennial Medals for Photography," and I can sympathize, as I am myself disappointed in the highest degree, and cannot well be otherwise, when I notice that the Centennial Commission has erased from the American names alone, which by the jury had been proposed for awards, about eighteen, and among them such men as Gutekunst, of Philadelphia, and Landy, of Cincinnati, whose works have met with general acknowledgment. I have protested against this injustice at the Centennial Commission, and wish that the protest may have its effect. I have no

part in this marking out of worthy names, and take no responsibility for it.

The American Exhibition is hardly closed and preparations are being made for the Parisian. Here, also, they began to think about it, but at the same time there was, by some, opposition made in a most energetic manner to the Paris Exhibition, and with good reason. World exhibitions only have their purpose when they occur at long intervals. Three years ago the exhibition at Vienna, this year at Philadelphia, and in two years another at Paris; this is too much. In two years, during this dull business time, our industry cannot make so much progress that it can show something really new and instructive. We shall see the same that we have seen at Philadelphia. Therefore the whole entertainment is not international, but only one of French interest. The city of Paris will be benefited at the expense of the exhibitors, who will spend thousands of dollars to live at Paris in the most effective style. It is time to protest against the topsy-turvy of world exhibitions. All nations, of course, have accepted the invitation to this exhibition. I asked some Englishmen their opinion; they said the exhibition is very inconvenient for us, but we have to take part on account of business interest. The Frenchmen need only to blow the horn, and all nations will come. But this time the German shall stay at home; and that is right. They will say Germany is afraid. That is nonsense. To those who have seen the grand American exhibition in chemicals, the little cases with German chemicals on the other side of the transepts seemed to be very aiminutive, but when we opened them and examined their contents we found excellent articles, and, indeed, among eighty-six German exhibitors in chemicals there were eighty who received medals.

It is unnecessary now to remark that German photography is not bad. In short, I have not the slightest reason in my branch to be afraid of any world exhibition; but I am opposed to this one on account of the above-named reasons, and I am glad if our nation does not dance as the Frenchmen pipe. After all it is not so very improbable that the European war, seemingly in prog-

ress, may in the last moment spoil the whole exhibition. Though the war is only as yet approaching, the dulness of business here is already very great. The ateliers are empty, and some are closed entirely. From all sides we hear complaints. But I must say that I found the decrease in trade, in a great many respects, far worse. Dr. Weissenborn, an eminent member of our society, finds the cause of this stagnation to be, that the public are surfeited with photographs. The public is tired of the carte de visite and cabinet photographs, and he believes that we ought to try something new, in order to bring the business up again. He proposes, as a new idea, transparencies in carbon. They can be produced easily, look handsome, and bring money. Besides that, he recommends the production of more portrait stereos. The propositions have something in their favor, and perhaps not only for Germany, but also for America, where there is now, at last, more attention paid to the carbon process. Nevertheless, we ought not to overlook that the cause of this quietness in business is not only the surfeit of the public with photographs, but the present general business calamity over the whole

Lately we have again heard many complaints about Bristols, which turned the pictures yellow after they had been pasted on. They had to throw away many thousands of such Bristols; a considerable loss for the photographers. In many cases, which I had occasion to investigate, the cause of this fault was a surplus of hypo. It is often used to take out of the bleached mass of paper the last-particle of chlor, and thereby a little surplus remains in it, which turns into the picture and spoils it. One and a quarter grains hypo in one sheet of picture surface is sufficient to cause the picture to be spoiled. This fault could be prevented, if the manufacturers, instead of hypo, would take sulphate of natron (after the old formula, NaOSO2, after the modern formula, Na<sub>2</sub>SO<sub>3</sub>; natrium sulphurosum of the pharmacy). An extra quantity of this salt does not hurt. I have already kept some pictures eight weeks, which I moistened with a solution of natrium sulphurosum, and they show no sign of changing,

Professors Birnbaum and Wartha have recently investigated some soiled cartons. Wartha has found no hypo in them, but he ascertained that the carton has been pasted on with sour starch paste, which had been in a strong state of decomposition. Such starch paste contains acid of milk, which can have a very bad effect on pictures, as we know that acid more or less affects the tone of photographic pictures. Birnbaum, however, found in the same carton reducing organic substances, which discolored iodide starch, and reduced the solution of silver. He declares grape-sugar as the cause, and remarks that the same on damp pictures easily produces the formation of fungus, which also spoils the pictures. "We see, under the microscope, in the yellow spots which arise on the picture always little dark points, around which the destruction in a circular line is increasing." These points Professor Birnbaum declares to be fungi.

But there may still be other causes. Often they print a margin of gold bronze on the cartons, and not unfrequently the bronze contains sulphuret of tin. When the dust of it happens to come on the picture, and is rolled tight on it by the satinizing machine, then, on such places, there will also arise yellow spots. Should any Bristol appear doubtful, then it would be best to cut it in pieces, and soak it in distilled water. When this, after twelve hours, discolors iodide starch, then we should not trust the carton; but, finally, we can use the same after putting it in iodide water:

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 1 part.

 Iodide,
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This destroys the hypo contained therein entirely, and may perhaps oxidize the reducing organic substance also. I have pasted on unclean cartons, treated with iodide water, pictures which remained in an excellent condition. Such cartons, of course, color blue in iodide water, under the formation of iodide starch, but this blue color disappears in a short time on being exposed to the air. We may paste pictures on the blue cartons without any damage.

Another offensive uncleanness of the cartons is ultramarine. They add it sometimes, in order to make yellow cartons look

whiter. This substance decomposes very easily with acids under the action of sulphur. Anyhow, this important point deserves further investigation.

As I have seen in several journals that Mr. Carey Lea has again made objections to my theory of colors, I regret I cannot discuss the matter. Since Mr. Lea's attacks have credited friend Waterhouse with assertions which he never made, or giving his decisions an entirely wrong meaning, I have considered it necessary to adopt the tactics of silence. In the meantime my friend Waterhouse has already published his remarks on this point, and shown that he agrees with my opinions, after which I may consider the matter as ended.

I informed you previously about the lead strengthening of Eder & Toth. We dip the fixed and very well-washed negative, after rinsing it in distilled water, in a solution of 6 parts of red blood alkali and 4 parts of nitrate of lead in 100 parts of water, wash it very well with distilled water, pour over it sulphur ammonium, and rinse it with water. This method is not for portrait photography, but for the reproduction of designs. For this the results are excellent, especially for photolithography, on account of delivering such a dense cover as we find in no other process. Lately Eder & Toth spoke in a detailed manner of all objections made against their methods. It was said that their process produced dim negatives, but this is only possible when the negatives originally were dim, or when, after its adjustment, the hypo has not been washed out sufficiently.

Further complaints were made about the voluntarily cracking of the lead-strength-ened negatives during drying. This occurs, however, only with some collodions, and can be prevented by albumenizing the plates. Eder & Toth recommend in such cases also to let the plates with the solution of lead become entirely dry before using the same. The strengthening then requires a longer time, but the negatives do not crack.

When negatives after the treatment in lead bath and washing show dimness, we can remove the same by applying a weak solution of hypo, 1 to 20.

The negatives strengthened with lead show, after drying, a very strong relief, of which we can take a galvanic plate. It ought to be remarked that the plates in the lead bath turn white under the formation of ferrocyan. lead and ferrocyan. silver. Instead of sulphur ammonium, they may also be strengthened with neutral chromate of cali, and we receive by this manner negatives which cover sufficiently, but not so intensive as those strengthened with sulphur ammonium.

Truly yours,
H. Vogel.

### FRENCH CORRESPONDENCE.

December Meeting of the French Society of Photography—Mons. Chardon and Emulsions—The Cause of Pinholes—A Phototypographic Proof by Mons. Rousselon—A Novel Means to print Plain Tints for the Chromo - Woodbury Type—Experimental Demonstrations on Mons. Ducos du Hauron's Process—A New Discovery.

THE French Society of Photography assembled last Friday to discuss photographic subjects.

Mons. Alfred Chardon presented to the Society a very fine collection of proofs in carbon, which had been printed from negatives made with his new emulsion process. If the readers of the Philadelphia Photographer remember well, I informed them that a prize of 500 francs was offered by the French Society of Photography to any one who would invent a good emulsion process, to which prize the French government joined the sum of 500 francs, which brought up the value of the prize to 1000 francs. It is very strange, indeed, that only Mons. Alfred Chardon has responded to the appeal. It is not that there are no persons who make good emulsions, but it is probable that their secret is worth more than is offered for its divulgation.

A member present made a communication on the cause of pinholes. He said that they were caused by an excess of iodide in the bath, and by adding a little nitrate of silver before commencing the day's work, this annoyance could be prevented. I would not dwell on this subject, but for the false idea that it might give to many photographers far away from great cities and photographic meetings, where the constant exchange of ideas and the work of the intelligent bring forth light.

The crystallized salt which is sometimes found upon the plate, is not always caused by the bath being saturated by iodide held in suspension by the silver salts. It is very often caused by the presence of a nitrite of silver in the nitrate employed. When a bath becomes old, the alcohol and ether facilitate the deposition of fine needle-like crystals, not to speak of the organic matter introduced into the bath with every plate. A photographer might ask himself, can I follow the advice, and raise the proportion of nitrate in my bath from 30 to 35 or 40 grains to the ounce, and so cure my bath? The answer can be given in the affirmative for an old bath: for when the iodide held in the fibres of the collodion combines with the silver of the bath, a corresponding quantity of the nitrate of the metal employed remains in the bath; and although it does not injure it, it weakens its power for sensitizing, because it does not contain so much nitrate of silver as when first employed. Therefore some nitrate of silver can be added to the bath without danger. I should myself employ another system to doctor such a bath which would give better results.

The bath being placed in a bottle after the day's work, it is easy to see how much is missing from evaporation or other causes. Distilled water should be added equal to the loss sustained; if the bath is saturated with iodide, a thick yellowish color will be produced; if the bath contain nitrite of silver, a great part will be thrown down. The bath is then filtered, after which the proper quantity of nitrate of silver is added; it is again filtered (naturally upon a clean filter); the bath will then work well; if in time it contains too much alcohol and ether, boil it for five minutes in a porcelain pan.

Never use a stockbottle of nitrate of silver to replace loss of liquid.

Pay great attention to the quality of the pyroxylin to be employed, for it is in my opinion to this product that can be laid all the fault of having pinholes in the preparation; when it is not sufficiently dense, it cannot hold the iodides and bromides in its fibre; these salts fall or dissolve out into the bath too easily, and the latter becomes saturated. Every plate weakens the solution; the nitro-iodide then begins to crystallize; the least lowering of temperature will cause the same phenomenon.

Mons. Rousselon, director of the wellknown establishment of Goupil & Co., laid before the Society a proof which had been obtained by him in a typographic press by a process which he has lately invented. This presentation created a great sensation, for it is a crowning of the great object in view during the last few years, and for which the Society of Encouragement has offered a prize of 2000 francs, which is to enable printers to draw off portraits, designs, landscapes, with their shades, and half tones, from blocks inserted among their printing type. The proof, although not perfect, would still have sufficed for the illustration of a periodical, etc.

Mons. Rousselon presented some photochromic proofs which were obtained by a very novel process. A mechanical means for the application of color to photographic prints has long been sought after. Mons. Leon Vidal has been unwearied in his exertions to obtain this end, and that he has succeeded is fully proved by the fine proofs exposed in the Philadelphia Exposition as well as in his public exposition on the Quai Voltaire at Paris.

Mr. Woodbury, whose acquaintance I had the honor to make in Paris, showed me a photograph in colors obtained by a combination of chromo-lithography with his process, called Woodburytype. It is a variation of this process which Mons. Rousselon explained to the Society. Formerly a few plain tints were printed on paper, linen, etc., by the ordinary process of chromolithography; the Woodburytype pellicle was then taken and placed upon the colored sheet in such a way that the green color on the sheet let us suppose is under the trees, the photographic proof will then give the shades and tones. These colored pictures are very rapidly produced, the greater time being spent to prepare the chromo-lithographic sheet. This is the most expensive of the process, especially if six colors be employed six different stones are required. A gentleman at Hamburg said Mons. Rousselon had the idea to make a kind of paste, each of a different color, and by placing them beside each other to form the proper design. This paste is so made as to be soluble only by heat. When the paste is completely prepared and all the colors in their respective places, the workman takes a piece of paper, lays it upon the paste, then rolls over it a hot roller; a little of the surface of the paste or composition melts, sticks to the paper, and the object in view is obtained. Thousands of sheets can thus be tinted daily To make the matter a little clearer I explained to the Society that the inventor had taken his idea from a system which was practiced in England to make cheap carpets, which was as follows: A pretty design having been chosen, a frame of wood was made of the length and breadth of the carpet or rug required, the frame being a yard or more in depth; into this frame was piled one above the other, skeins of colored wool, in such a manner that the top and bottom presented the required design. The frame was then screwed up in such a manner as to leave about half an inch of wool standing above the frame. A piece of sackcloth was then dipped into an india-rubber solution and laid flat upon the projecting wool, which then adhered with force to the sackcloth. A cutting instrument was then employed to cut off all the projecting wool from the frame. A carpet was thus formed. Another piece of sackcloth with its indiarubber solution is again placed, another half an inch is cut off, and so on till all the wool is employed, and from sixty to eighty carpets made; it is after the same system that plain tints can now be drawn off by thousands.

We may now expect to have charming little photochromic proofs at a very cheap rate. It is an old saying, "Nothing new under the sun." If this is true we may expect that one of these days a photo colored portrait of Noah's Ark will be discovered.

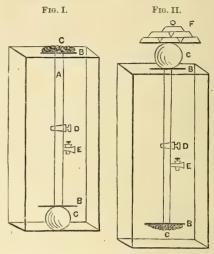
Mons. Klerjot made an experimental demonstration on the heliographic process of Mons. Ducos du Hauron. It can be re-

membered that this gentleman proposes to reproduce the natural colors by the aid of the camera, by the interposition of colored glass in the lens. Three negatives are taken of a nosegay, one of the negatives is employed to print on a yellow tissue, the second on a red, and the third on a blue. These three pellicles were placed the one above the other before the Society. The result was a very harmonious picture. Alas! the cost of the manipulations is too heavy to compete with the two mechanical processes of which I have just spoken, inasmuch that at present the results obtained are about the same, and the public little care by what process a picture is done, providing it is cheap and pretty.

For the last few days all the *êlite* of Parisian science have been deep in thought, as an engineer had given the news to the world that he had discovered a new power which would revolutionize the art of the engineer. The inventor, Mons. Ch. Boutet, is well known; he is the author of the project of a bridge over the Straits of Dover, which would probably have been finished but for the overthrow of the Imperial Government. Since the war he has directed his attention to hydraulic machines, and upon the following experiment he has based his idea of a new engine.

He takes an apparatus composed of a twoinch bore iron tube, of a vard and a quarter long, to each end is brazed an iron disk, intended to support two india-rubber balls in communication the one with the other, by means of the iron tube. This communication can be cut off at will by means of a tap (see Fig. 1); a small tap is also placed in the tube to inflate the india-rubber ball. When this is done the apparatus is pressed down into a large tank of water (Fig. I). This requires a force which can be calculated at about 10 lbs. A charge of 160 lbs. can be placed upon the upper ball, and when the communication cock is opened the 120 lbs. will be raised up (see Fig. II). By this simple experiment it is clearly proved that a gain of 120 lbs. of force can be obtained. The author intends to avail himself of this force, and to make a 20-horse power engine for the next Exposition of Paris in 1878.

Such is the invention of which every one speaks—a constant force obtained without expense. A machine of unlimited power,



A, iron tube; B, B, iron disks; C, C, india-rubber balls; D, communication tap; E, air cock; F, 160 lbs. weights.

which feeds itself. No smoke, no dust, no noise, no danger of explosion. Another crown to the glory of the nineteenth century.

PROF. E. STEBBING.

3 PLACE BREDA, PARIS.

### VIOLET GLASS FOR STUDIOS.

BY THOMAS GAFFIELD.

Mr. Editor: I notice in the December Photographer that Prof. Stebbing of Paris, with whom I had some pleasant interviews in that city in 1872, calls attention to the attempts of an Italian, named Scotellari,\* to make the members of the Photographic Society of France, and the photographers of Paris, believe that violet glass is superior to white or colorless glass for the glazing of studios.

I have only to say that such a claim is in entire contradiction of all my experiments for the last nine years with colorless glasses of many kinds and glasses of all colors. My experiments have all been made with paper sensitized with chloride of silver.

<sup>\*</sup> See article on page 13.

The poorest kind of colorless glass, and even those kinds which have been changed to a yellowish or purple tinge by exposure of years to sunlight, will transmit a much larger amount of the chemical rays than the most actinic of the really colored glasses, the blue and violet.

I have never made any experiments with iodide or bromide of silver, and I shall not have time with my present occupations to make any before the publication of your next number. I have no idea that any different results will be attained, and I have not seen any photographer in Boston who "takes any stock" in the so-called "invention," which is said to be patented in France.

I would like to add, that in a series of photometrical experiments, made by Prof. Frederic E. Stimpson and myself in 1867, we found purple or violet glass to cut off about 90 per cent. of the light rays. I have never yet expressed in mathematical terms the amount of chemical influence cut off by colored glass, but I should think that violet glass would transmit from 25 to 30 per cent. less than any colorless glass.

Under the circumstances, it is difficult to conceive of the remarkable effects named under violet glass.

As Professor Stebbing says, "The fact is, an error is committed by him, or that iodide and bromide salts are more sensible to violet rays than chloride of silver, with which the experiments of Mr. Gaffield were made. I think it would be well for some competent person to seek the truth, for it interests the whole photographic community."

I do not pretend to be the "competent person" suggested by my friend, Prof. Stebbing, but for my own gratification, and as soon as I find opportunity, I hope to make a few experiments on iodide and bromide of silver, under colorless and colored glasses, and will communicate the results to you.

### OUR PICTURE.

To commence the new year, and another volume of our magazine, we have the pleasure of presenting our readers with a picture which we are quite sure will charm them all, and fulfil our promise to try and

give them a higher standard of work than ever before. To do this in portraiture is to promise a great deal, yet we mean to try. Every photographer who has practiced both portrait and landscape photography, knows that it is much more difficult to attain excellence in the former than in the latter. We know, too, that there are many who fail to rise above mediocrity in portraiture, but excel in landscapes. These last may possess equal artistic talent, but to succeed well in portraiture requires a peculiar tact on the part of the photographer which all do not possess. It requires more of the ideal, more creative genius; an aptitude for imitating nature; a keen, intuitive perception of human character; a well-trained eye that can see all the delicate play of light and shade on a face; a pleasing address that will place his sitters at ease, and enable him to secure the best expressions; a fund of mental resources by which he can adapt himself to different temperaments, and find expedients for every emergency; and with all an unlimited stock of patience, by which he may rise above the perplexities of his calling, and persevere for a successful result with both young and old. These qualities. we think, must be possessed in a good degree by the author of "Our Picture," Mr. Walter C. North, of Cleveland, Ohio.

We have illustrated our magazine several times with specimens of Mr. North's work, and it has always been gratifying to notice that each effort was a decided improvement on the previous one, showing that he is a progressive artist, and always well in the van.

This last production by Mr. North is a very lovely picture. He has chosen his ideal, and then with masterly execution, in composition, lighting, and chemical effects, proceeded to illustrate it. Upon our first seeing this picture, and inquiring in our mind what Mr. North had intended to illustrate, our impression was to call it Maud Muller. A letter since received from him says that this was the character he had in mind, and meant it to represent.

Although "Our Picture" may not fill all the conditions pictured in Whittier's pretty poem, such as the torn hat, and

"Her feet so bare and her tattered gown,"

yet we may accept this as a more maud-ern version, and described in some of the following lines:

- "Maud Muller, on a summer's day, Raked the meadow sweet with hay.
- "Beneath her torn hat glowed the wealth Of simple beauty and rustic health.
- "Singing, she wrought, and her merry glee The mock-bird echoed from his tree.
- "But when she glanced to the far-off town, White from its hill-slope looking down,
- "The sweet song died, and a vague unrest, And a nameless longing filled her breast—
- "A wish that she hardly dared to own,
  For something better than she had known."

The judge rode down the lane; she dipped him a cup of water from the spring, and then he had a pleasant chat. She was moved by his words,

"And listened, while a pleased surprise Looked from her long-lashed hazel eyes.

Then the judge rode away, and

"Maud Muller looked and sighed: 'Ah me!
That I the judge's bride might be.'"

We will not follow out the sequel of the little story to those sad words, "It might have been," but leave it as illustrated by our picture, full of the freshness and beauty of a young life, with the hope that the fair subject, who deserves our thanks for the part she has taken so well, may never have occasion in her later life to indulge such reflections as caused "unrest" in the breast of Maud Muller.

Mr. North's treatment of his subject is highly creditable, and forms an excellent example for photographers to follow. There is no more legitimate or beautiful application of our art than this illustration of characters which, in song or story, have been made to touch the tenderest chords of human sympathy, or arouse emotions of valor or patriotism. In the photograph the individuality of the subject seems lost, and the beholder sees only the lifelike representation of some character in history or romance. Now, the field is illimitable for this class of work, and its practicability has been sufficiently demonstrated by the successful efforts of some of our best artists.

We trust that photographers will become scholars as well as artists, and while they are studying and practicing art, study also to find some subject or character, by which their art may be put to a practical application that shall command general attention, and possess a recognized artistic value. We are glad to see that Mr. North has adopted this method of expressing himself, as he is one of our most intelligent artists, and fully capable of leading or teaching others. He has already been very successful as a teacher, and is now prepared to give instruction to any who may desire "more light." Parties wishing to confer with him on this subject may address, Walter C. North, 211 Superior Street, Cleveland, Ohio.

Mr. North has not given us his formula, but this we presume is because he has made no change. He says he uses great care, and tries to exercise good judgment, which, after all, are of more importance than formulæ. The negatives from which our picture was printed were among the cleanest, most perfect, and brilliant of any that it has ever been our pleasure to inspect.

The prints were made at the printing institute of Mr. Charles W. Hearn, who has endeavored to do as full justice to the negatives as was possible in printing so large a number, in connection with the great press of work which continually crowds upon his establishment

"SUNSHINE. -The world wants more sunshine in its disposition, in its business, in its charities, in its theology. For ten thousand of the aches and pains and irritations of men and women we recommend sunshine. It soothes better than morphine. It stimulates better than champagne. It is the best plaster for a wound. The Good Samaritan poured out into the fallen traveller's gash more of this than of oil. Florence Nightingate used it on the Crimean battle-fields. Take it into all the alleys, on board all the ships, by all the sick beds. Not a vial full, not a cupful, not a decanter full, but a soul full. It is good for spleen, for liver complaint, for neuralgia, for rheumatism, for falling fortunes, for melancholy. Perhaps heaven itself is only more sunshine."-Sanitarian.

### Editor's Table.

An Immense Crayon.—The largest crayon photograph we have ever seen has recently been on exhibition in Mr. Janentzky's window, 1125 Chestnut Street, this city. The picture is eight feet high by five feet wide, and represents a group of four persons full length and nearly life size. It is the work of Mr. Giovanni Bressan, of this city, who is certainly an accomplished artist with the crayon, as we have never seen anything finer in execution than this excellent group.

WE have advised our readers in one of our editorials in this number to make a little noise in their communities, if necessary, to make business. We have an illustration of the advantages of this from Captain H. R. Marks, of Austin, Texas, who exhibits his work at fairs, and manages to secure frequent complimentary notices in the local papers, both of which are great helps to business.

Another in the same direction is from Mr. John Cadwallader, of Indianapolis, Ind., who displays large cuts of three of the interior departments of his gallery in the "Trade and Real Estate Advance." In connection with the illustrations we find the following pertinent allusion to photography:

"The above business fills a wider field known to the artistic world than the mass of humanity who avail themselves of its workings could possibly dream of in their philosophy. It is due to the grandest combination of the sciences, as well as the needed study of the operator, the finished stroke of the retoucher and colorer, which places the lifelike representation of its object upon the cardboard. The constant study of the photographer divulges new methods to the profession, and the improvements in this branch of industry have been as fully marked as in any field known to man's ingenuity."

VICK'S FLORAL GUIDE, by James Vick, Rochester, N. Y. No. 1 for 1877 of this interesting quarterly is before us. It is filled as usual with instruction relating to the cultivation of flowers and vegetables, and must be of great service to those interested in this direction. This number is embellished with a beautifully colored plate, entitled the "Summer Bouquet." The Guide is furnished for 25 cents a year.

Mosaics for 1877 is now ready, and photographers will do well to order early. It is filled

with original matter, and much that cannot be found in any other publication, it being original and written expressly for this work. The articles on "Dry versus Wet," an excellent emulsion process; "The Centennial Photographic Exhibition," giving the names of those receiving awards, and statistics relating thereto; and the "Metric System," containing tables for the easy reduction from one system of weights and measures to the other, are each valuable for instruction or reference. Mosnics for 1877 will certainly give you your money's worth. Price 50 cents.

PICTURES RECEIVED. -Mr. F. B. Clench sends us a fine cabinet portrait of Mrs. Brigham Young. No. 19. She is handsome and young looking enough to be A No. 1. Mr. Clench has reproduced her in his usual excellent style. Cabinet from Messrs. James & Son, Iowa City, Iowa, a fine photograph of a fine face. Cabinets and cards from Mr. T. Doney, Elgin, Ill., printed by his patented engraving printing process. This process represents line engraving, the lines being printed on the paper previous to its being prepared for photographic use. The effect is quite pleasing. See advertisement in "Specialties." Cards from Messrs. L. H. Clark, Minonk. Ill., and E. H Train. Stereos from Mrs. E. W. Withington. Ione City, Cal. These are quite remarkable for having been made by a lady, especially when we consider the mountainous region they represent. A little more care in cutting and mounting is necessary for the best effects. An article in Mosaics for 1877 by Mrs. Withington describes her method of working. Stereos also from Mr. William H. Rau, consisting of a collection of fine views taken at Chatham (Wairikaori) Island, South Pacific Ocean, during the operations there of the Venus Expedition of 1874, of which Mr. Rau was one of the photographers. They are valuable mementos of that far-off region, as well as of that celebrated enterprise in the interests of science. Mr. Rau will please accept our thanks for his generous donation.

LATE.—We are unavoidably late this month on account of our printers, Messrs. Sherman & Co., shutting down during holiday week for repairs. We were notified of this when it was too late to avert the delay.

A LONG JOURNEY — Few photographers, probably, journeyed so far to visit the Centennial

Exhibition as did Mr. L. W. Chute, of the firm of Chute & Brooks, Montevideo, South America. He arrived here in August, and spent about three weeks at the Exhibition, noting all the improvements in photography, and taking in the whole grand display, as far as it could be done in that time. Since then he has been visiting friends in various sections of the country, and has recently returned to his home in the far South. Mr. Chute goes back freighted with new thoughts, new courage, new books, and a fine selection of new apparatus and accessories, with which to supplement his already well-stocked gallery, and maintain the high reputation his house has won for the best work done in South America. Messrs. Chute & Brooks are regular subscribers to the Philadelphia Photographer, and keep well posted on all that pertains to excellence and improvement in the art. A visit to the Centennial from a section so remote is but a shrewd stroke of business enterprise, and we have no doubt the patrons of this house will soon see the results upon the return of the senior partner.

A REMARKABLE PHOTOGRAPH. -One of the most successful efforts we have ever seen, in the way of combination printing, has recently been executed by Mr. F. Gutekunst, of this city, in the production of a panoramic view of the Centennial grounds and buildings. The print is ten feet long by eighteen inches wide and was made from seven different negatives, so successfully joined that it has the appearance of having been printed from a single one. The view is from George's Hill, near the reservoir, and is a most faithful representation of everything visible within the Exhibition inclosure from that point. The print we had the pleasure of seeing, after being exhibited for a few days, was sent as a present from Mr. Gutekunst to the Queen of England, in care of the English Centennial Commissioner, Colonel Sanford.

Mosaics Free.—The addresses of two or three contributors to Mosaics have been mislaid. If the parties who have not received their cloth-bound copies will send us their addresses we will forward them.

In a letter from our good friend, Romain Talbot, of Berlin, occurs the following graceful testimonial to our magazine: "Your Philadelphia Photographer remains, in my opinion, not only the best printed, but the best journal of photography, and I read it always with pleasure, admiring your activity and care." MR. R. Benecke, of St. Louis, has sent us some views of the destruction of the Mississippi boats by the ice at that place. They are from 11 x 14 plates, and executed with the same care and excellence which characterizes all of Mr. Benecke's work.

The Milford Advertiser is the name of a little paper published by Mr. E. L. Willis, of Milford, Mass., photographer of that place. He makes it advertise his business, and contains many useful hints to his patrons which help to a better understanding between him and them. It starts with a good advertising patronage, and altogether has a real sprightly appearance. We think this better for a photographer than starting a photographic journal.

CATALOGUES have been received from Messrs. W. A. Mansell & Co., London, of Mr. Frank Good's "Views of the Holy Land," and Mr. Payne Jennings's "English Lakes" and "Irish Scenery." These are two of the best landscape photographers in Great Britain, and Messrs. Mansell & Co. are fortunate in having the agency for the sale of their work.

The Kindergarten system of instruction for children is now attracting a good deal of attention, and the means of supplying the necessary materials for object teaching have already been provided. Among others, Mr. E. Steiger, 22 and 24 Frankfort Street, New York, according to circulars sent us, has gotten up "Fræbel's Kindergarten Occupations for the Family." These are calculated to draw out the artistic or mechanical tendencies of a child, and no doubt lay the foundation for future development and usefulness.

MR. ALFRED FREEMAN, Dallas, Texas, who exhibited in Photographic Hall, and has also been represented in the North Texas Fair, held in October, has a flattering notice from the Dallas Daily Herald. That is the way to make a reputation. Show your work.

MR. FRANK F. CURRIER, Omaha, Neb., also has complimentary notices from local papers, both on his Centennial exhibit and home work.

A CATALOGUE CIRCULAR from Mr. W. M. Lockwood contains a list of over two hundred stereo views published by him of the scenery of Green Lake and surroundings, and of Ripon and vicinity. A few examples sent us are finely executed.



The publishers have a great many good things in anticipation for the year 1877, which they think will render their magazine more beautiful and more useful than ever before; and while they maintain that the beautiful example of photography, which accompanies each issue, is alone worth the subscription price, still more and more effort will be made to make the reading matter everything that it ought to be. Our correspondents from all the leading centres abroad will keep our readers posted on all matters of interest in their several sections, while our unrivalled staff at home will look diligently after your interests here. To make the Philadelphia Photographer the best practical helper which can possibly be obtained, is the aim and earnest desire of its publishers.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us new ones, the following

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### **PREMIUMS**

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56. 1005—Agricultural Hall, interior, looking west.
57. 898—Agricultural Hall, interior, looking west.
58. 1181—Agricultural Hall, interior, Pazilian cotton ex.
58. 1181—Agricultural Hall, interior Cal., grape-vine.
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65. 276—Horticultural Building, growing banana.
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67. 286—Horticultural Building, forcing-room.
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693—Horticultural Grounds, rhododendrons,
70. 318—Horticultural Grounds, rhododendrons,
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76. 929—U. S. Gov't, Building, sloop-of-war Antietam.
77. 931—U. S. Govern't, Building, main avenue,
looking east.
79. 933—U. S. Government Building, Nevada minerals. 1. Independence Hall. 3. The old Liberty Bell.
2. Independence Hall, interior. 4. Yankée Doodle.
5. 881—Centennial Grounds, bird's-eye view.
6. 102—Main Building, east end.
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933—U. S. Government Building, Nevada minerals.
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90. 1362—Italian Department, Art Annex.
91. 1283—Italian Statuary, Soap Bubbles.
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45. 889—Art Gallery, Swedish Section.
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We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

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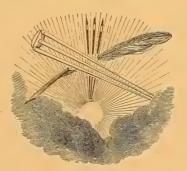
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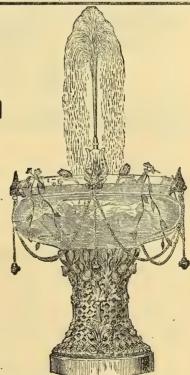
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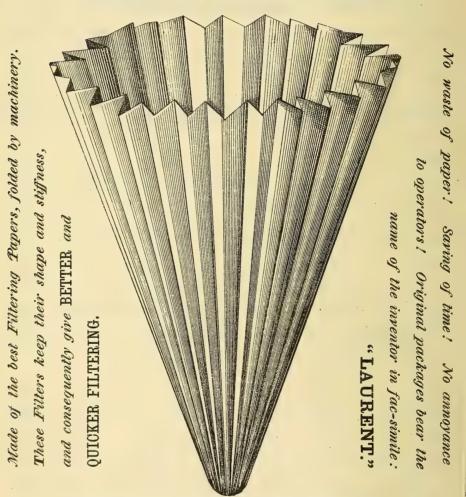
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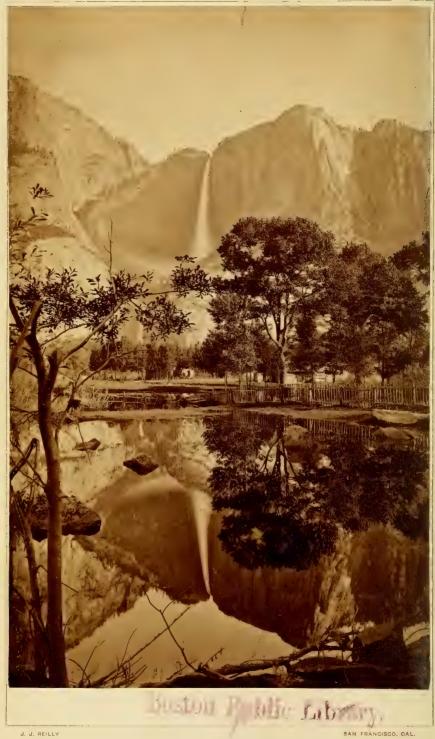
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## Philadelphia Photographer.

Vol. XIV.

### FEBRUARY, 1877.

No. 158.

Entered according to Act of Congress, in the year 1877,

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### HOW, WHAT, AND WHEN TO WRITE.

To Contributors.

To communicate one's thoughts in the best manner on paper, so that they may be in readable form, and the meaning clearly conveyed, is an accomplishment that every one should strive to attain. To do this there is no better means than exercise: but, like most other efforts; a person will succeed best when he has a taste for it; though to this there may be exceptions, for some of the poorest writers appear to have a passion for scribbling, or seeing their effusions in print, while others who always write well write very seldom, and always, apparently, shrink from making the attempt. Writing for the press, like the results in photography, is seldom entirely satisfactory to an ambitious author, but it is in the highest degree educational. The man who writes must read, and he who reads must acquire knowledge, and it is for this very reason that we would advise photographers to practice writing, if it be nothing more than to make notes of their daily experience, and record the various details of the photographic processes.

But we here wish to say that our magazine is open to all who have anything useful to communicate, and we desire that it should be the medium through which pho-

tographers may improve themselves in literary efforts, and give of their knowledge whatever may be helpful or instructive to others. We desire to see the highest possible standard of intelligence cultivated among photographers, for our experience has shown us that those who possess the greatest fund of general information, or in other words, are the best educated, succeed best in the practice of photography.

To encourage young men then who may feel disposed to adopt this method of improving themselves, we will offer a few suggestions which may be helpful in any efforts they may make in this direction.

How to write. First of all acquire the habit of writing a legible hand, that the compositors may read it without effort; for, although they are supposed to be able to read all sorts of writing, yet they often are called upon to decipher manuscript, the meaning of which "is past finding out."

Secondly, study to condense your thoughts so as to express what you have to say in as few words as possible. It is usually more difficult to write a short article than a long one, from the fact that it requires more study to put the same material into the condensed form. But we would caution any of our contributors against condensing, in the manner which some practice, of leaving out words which are necessary to connect the parts of a sentence and make it read cor-

rectly; such for instance as: Sit subject in chair, place head-rest, focus camera, expose plate, etc., etc.; and above all, write fearlessly and honestly, and sign your own name to it.

Thirdly, write to the point, use simple straightforward language, and according to your best knowledge of the rules of grammar and composition. But we would not have any one deterred from writing through fear of shortcomings in this respect, for if an article be otherwise good, we are always willing to correct all errors of a grammatical nature.

What to write is another important consideration, but the instruction here need only be brief and simple. Write about that with which you are familiar. If you write for the instruction of photographers, stick to your text, and let that be something bearing upon or relating to photography. Avoid abstractions or the discussion of subjects which belong exclusively to the scientist or philosopher. Art, chemistry, and items from the daily experience of photographic practice, form subjects of the greatest interest to the practical photographer, and assist the author himself in acquiring a more thorough knowledge of the profession, in which he is trying to elevate others.

When to write. This may be claimed to be regulated to suit the mood or convenience of the writer. Granted, but periodicals are arbitrary affairs; like time, the tide, and railroad trains, they are not supposed to wait for anybody. So when contributors wish their articles to appear in an early issue, we desire that they should have them in our hands by the fifteenth of the month, otherwise they may have to lay over. Again, write often. Do not wait for some great theme to move you, for it may never come your way, but improve every opportunity to note the little things, the wrinkles and dodges that make up the most approved methods of working, and are really the "stepping-stones," over which hundreds are moving on to success in the art.

Take into consideration then this question of writing, and if you feel disposed to cultivate your talents in this respect, think over the propositions of how, what, and when to write, and see how much you can do to improve yourself, and contribute to the general stock of photographic knowledge.

### PHOTOGRAPHIC NEWS.

STENOCHROMY is another name added to the list of photographic pictures, and is the invention of Mr. Walter B. Woodbury; it consists of pictures printed from surface blocks in colors, over which the carbon film of a Woodbury print is placed, thus giving the very pretty effect of looking somewhat like a photograph and a chromo together.

Sound Doctrine.—Our contemporary of the British Journal closes an excellent article upon the effect of solvents upon the structure of a collodion film as follows: "In working large plates, the great object is to secure a good flowing collodion which does not set too rapidly, while at the same time it is not too slow. This can only be done by carefully studying all the circumstances of the case, the quality of the pyroxylin and solvents, as well as the nature of the salting formula."

Nor So.—One of our English exchanges speaks of *Humphrey's Journal* and the *Western Photographic News* as being still numbered among the photographic publications of to-day. The latter was discontinued last year, and the former four or five years ago.

THE Parisian milliners, when unable to see the ladies for whom they are requested to make hats and head-dresses, send for their photographs before they make the selections of shape and color of trimmings.

The Photographic Notizen describes a new vignette for full-length pictures recently introduced in Germany. These had a considerable run in our country sometime ago, under the name of "illuminated vignettes," and were certainly pretty.

THE Paris Exhibition is now exciting the foreign photographers. We fear but little will go from America so soon after our own exhibition; we hope, however, that our leading photographers will prepare something handsome for exhibition in our Philadelphia permanent building. No better advertisement could possibly be had than examples of your best work shown there.

PHOTOGRAPHS taken at midnight, with

an exposure of thirty seconds, in the month of August, with the thermometer below the freezing-point, is the latest photographic sensation in the Arctic regions.

LAMBERT LINGERIE.—We have received several communications from parties who are not subscribers to our magazine, who say they have written by request of Mr. Lambert in praise of his process; but as such communications are not what we solicit, of course we cannot print them; they must be from parties who are known to us, and not from those in obscure places. We have yet no offer to make a Lambertype picture for our magazine; there seems to be a fear to undertake it. Summer cometh.

HERR WINTER, of Prague, is exciting the photographers of his city and Vienna by exhibiting his enlargements upon iodized paper; the source of light is electricity. The whole process, from the turning on of the electric light to the completion of the picture, lasted twelve minutes, including development and all. Such a process must be invaluable in that country where but little sunshine is allotted to mankind.

Some of our foreign contemporaries are finding fault with our patent laws. The fault we have to find is, that so many foreigners come over here and take advantage of our patent laws, and annoy us with their dubious claims. We are always glad to pay for anything good in this country, but we do not like rehashes of things that are bad, with still worse claims to back them up.

A NOVEL IDEA. - A photographer in Philadelphia endeavors to excite business by offering to take, free of charge, all ladies and gentlemen, who will present themselves, who are over fifty years of age. We do not of course expect that he will obtain any lady customers, but doubtless he will get some handsome gray-haired old men. Would it not have been a happier hit, however, if he had advertised to make pictures of all babies under a year old who presented themselves to the mercies of his camera, for every smart photographer knows that if he secures a good picture of the baby, he is liable to get the rest of the family.

TRI-CITY CONSISTENCY.—One time, when we were quite a youth, we remember seating ourselves on the extreme southern end of the State of Pennsylvania, and kicking one foot into the State of Delaware. and the other into the State of Maryland; and had we been a few inches taller, we should have been able perhaps to have touched the State of Virginia with our fingers. It has always been a source of grief to us that we could not do so. In a similar state of grief seems to nervously exist one of our Western stockdealers, for he sits upon his throne in one of our Western States, and bears a foot (not a hand) in another State further south, and the pressure of his final pedal extremity is felt in still a third, and like the horse-leech, or like ourselves as described above, he wishes for more. What he would control, if he could, we know not, but he has in the first number of that periodical made a most desperate attempt to catch-well the St. Louis Photographer; but, alas! how inconsistent he is. On one page, he pats the new editor on the head, in congratulatory style, over his determination to have nothing to do with any matters which pertain to merchandise; while in another, the editor pays him back by giving him almost a half column of gratuitous notice, ending with a first-class mention of his own patent article, upon which he hopes to realize a fortune, and of which his magazine is to be the chief organ, and for which the aforesaid Western stockdealer is the principal agent; and as to all this, including the patented mount, we say in the closing words of the aforesaid notice, "try them those that have never used them." What "red-hot" fun!

### OVERIODIZING AND PINHOLES.

BY ROBERT J. CHUTE.

Among the many troubles experienced by photographers, there is probably none more common to all than the perplexing evil of pinholes. They are, as all exprienced operators know, the result of various causes, and are produced in a variety of forms. But I propose here to treat only of that class, or their cause, which are the result of a so-called overiodized bath.

As some attention has recently been given to this subject both at home and abroad, I have looked into the history of this overiodizing theory, and the popular method of treating it. For the past twelve years or more, the remedy most practiced for the cure of this trouble has been to precipitate and filter out a portion of the iodide, in order to keep the bath below the point of saturation.

As far back as 1853, in a discussion which followed the reading of a paper "On the Nitrate Bath," by R. Fenton, Esq., before the London Photographic Society, a complete saturation of the bath with iodide of silver was advocated.

In 1855, Mr. Hardwick's work on Photographic Chemistry was published, and in it he took the same ground of having the bath saturated with iodide of silver, and explained the consequences of its not being so. In 1860 Mr. Charles Waldack published his excellent Treatise on Photography, and his instructions on this subject were the same as Mr. Hardwick's. I may here say that these two works were my text-books in those days, and I always found their teachings so reliable in practice that I was satisfied to let well enough alone, and never adopted some of the later methods, some of which are now being quite effectually proved to be erroneous. Among these is the one which I propose to treat of in this article, viz, the rectifying of the negative bath by precipitating the iodide of silver.

I have tried to ascertain at about what time this method came into general use, but as I have at hand but few publications issued between the years 1860-64, I am not sure that I have the earliest date of its publication in the work entitled Photographic Munipulation, by S. R. Devine, published in 1864; but whether or not this be the first is immaterial, as it was about this time that the practice appears to have been adopted among photographers, and nearly all writers on the subject of the negative bath from this time forward recommended it. I will not pretend to say, however, to what extent it was accepted by practical operators at that time, but there is little doubt that the instruction so positively and repeatedly given was put in prac-

tice by nearly all beginners from the time referred to till protests began to be entered in the year 1871. I had never adopted this plan of rectifying the negative bath, and when in 1869 I entered one of the leading galleries in Philadelphia as positionist, I witnessed for the first time the precipitation and filtering out of the iodide of silver, for the purpose of keeping the bath in working order. I readily acquiesced in this proceeding on the ground that the dipping of a much larger number of plates each day than I had been accustomed to, doubtless rendered it pecessary. The work being then in the hands of a very skilful manipulator, all went well; but later on, when the darkroom came to be in charge of a younger man, who had been educated in the same school of practice, but had not the experience of the other, I began to see the evils of the method, and watched carefully the effects. Almost invariably after a bath had been thus treated, thin bluish films with the iodide of silver partly dissolved away around the edges of the plate, if it had chanced to remain in the bath a few moments too long, and hard, harsh negatives were the result, till the bath had again regained the iodide of silver of which it had been robbed. I had no jurisdiction over the dark-room, my protests were not sufficient to induce an operator to adopt a different method of practice from that in which he had always previously been instructed. In the fall of 1870, however, a change was made, and an operator who shared my own views to the letter in this respect, took charge of the darkroom, and for eight months no iodide of silver was ever precipitated or filtered from any of the baths, notwithstanding some one of the several in use was out for boiling nearly every night in the week; and during that time I never saw chemicals work smoother or produce more uniform results. After this satisfactory experience the gentleman in question, Mr. S. M. Robinson, now of Pittsburg, was induced to prepare a paper on the subject, which was read at the monthly meeting of the Pennsylvania Photographic Association in May, 1871, and published in the Philadelphia Photographer for June. This was the first shot fired in this direction. It was with some misgivings, I know, that

Mr. Robinson made the following statement: "It is a mistaken idea, excess of iodide in a bath. I claim it is not possible when it is kept up to the original or proper strength, and that pinholes from excess of iodide are only the surest indication of weakness." But he had fortified himself with eight months of experience, in which he and I had in view the object of demonstrating the fallacy or soundness of this practice, which was being recommended by the best operators. Mr. Robinson quotes O'Neil at that time, in opposition to his own theory, and later, in the Philadelphia Photographer, for August, 1871, Mr. Elbert Anderson instructs his man Marshall very explicitly on this point, even to the extent of pouring the bath into the water instead of the opposite, in order that the iodide shall be more thoroughly precipitated. My own experience, however, continued to be confirmed, as the circumstances I have related resulted in giving us a convert. Upon Mr. Robinson's retirement from the position referred to in the dark-room, the former operator returned, and upon being informed that no iodide had been precipitated from the baths during his absence, he was willing to adopt the same method of proceeding, and so the anti-excess of iodide theory prevailed there to the satisfaction of all and the more uniform character of the work.

This was the entering wedge, and I felt that the advantage gained should be followed up. I was at that time writing a series of dialogue articles entitled "Under the Skylight," as that was the department in which I then worked. I chose then to write under the nom de plume of Roland Vanweike, and desiring to get at this question I closed the skylight series, and in July, 1872, commenced another series entitled "Under the Skylight and in the Darkroom," in the first paper of which occurs the passage quoted below. My pupil was supposed to be quite well-read, though he had had no instruction in dark-room work, and at a certain stage of the proceedings he queries as follows:

"'Why don't you add water first, and precipitate the iodide? That's what most of the authorities recommend.'"

"Can't help it, Focus; never did it in my

life, and don't believe in it. More operators have been led into difficulty by following such suggestions, and keeping their baths insufficiently iodized, than have ever been benefited by it. When I make up my bath, after boiling, to the proper strength and bulk, if there be any excess of iodide it will filter out and leave the bath with just the quantity it needs, saturation. And I believe it will receive no more, theories to the contrary notwithstanding; and if this strength be kept up, it will never show excess of iodide. There may be exceptions to this in warm weather, when the bath is at a high temperature and considerable evaporation takes place. In that case the bulk is reduced by evaporation, and the quantity of silver by use; but the relative strength remains the same, as well as the original quantity of iodide, which is in excess, not from any additions to it by use, but from the very reasonable fact that there are not so much silver and water as in the first place to hold it."

In the second paper, in the August number, the consequences of removing the iodide from the bath and the advantages of keeping it in are explained.

Now I would not contend that there might never be a condition of the bath in which it would not be well to remove some of the iodide, when done by a skilful manipulator; but the instructions so uniformly given by nearly every writer on the subject of the bath, led every tyro to resort to this as one of the first things to be done whenever his bath did not work well, and in this way it became a serious evil in the general practice of photographers. Some, I think, were very ready to see this, and in one important case came a very wholesome confession. In the December number of the Philadelphia Photographer for 1872, Mr. Anderson's friend Marshall writes him to know about this question, as a neighbor of his had told him that he never had occasion to take any iodide from his bath, and never had it overiodized. Mr. Anderson replies: "You must bear in min I that I do not practice all I preach." Then he explains that the instruction he has heretofore given applies to small baths, but where large baths are used the trouble from overiodizing is not so great. In reference to his own work he says: "My baths, as I have before told you, hold about three gallons, and I have not filtered out the iodide certainly for a year or more, and probably shall have no such occasion for a year or so more."

It seems strange that men should preach what they do not practice, and that Mr. Anderson should not have incorporated in his book, the Skylight and Dark-room, which was published the same year, the precepts which he laid down in December, and which he said he had practiced "for a year or more." Had he done this many might have found the better way of working, and instead of starving their baths and sending to the refiners every few months a batch of filters loaded with iodide of silver, would have practiced the economy of keeping that precious material where it is most required, and with less chemical difficulties have made greater progress in the art.

But the leaven has been working, and many seem to be gaining sufficient experience or courage to speak and combat this long-standing error. Among them I notice some members of the Chicago Photographic Association, who have read papers on and discussed the subject. In answer to the question there raised as to what the crystals are which cause pinholes, if they are not iodide of silver, I would refer to Professor Stebbing's Paris letter in the Philadelphia Photographer for January, 1877; also to the same in the June number, 1876, page 181.

Thus we see the progress of theories and the slow changes of opinion. An evil will take root, be nourished, and grow for years, while those who are taking the best care of it are the very ones that should discover its fallacy, and instead of holding to it root it out, and find some better way.

Now that this subject is being agitated, I trust that photographers everywhere will be free to express themselves, and let the matter be settled on the authority of those whose daily practice should give weight to their opinions.

There are two sides to most questions, and there are two to this; but I have yet to hear a reason given for taking iodide from the bath other than that of avoiding pinholes, which are merely nightmares that seldom appear, and are now being proved not to be caused by an excess of iodide; while even the advocates of the precipitation theory admit that the condition of the bath just before it begins to show pinholes is the most favorable for producing excellent work. This then is the important point, to keep it as near as possible to that excellent condition, which is that of saturation with iodide of silver, and the maintenance of its strength at as uniform a standard as it is possible to secure.

### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 7.)

LET us leave the portrait department for awhile, and examine the methods by which other branches of the business (that of the Centennial Photographic Company) have been conducted. As far as negative-making is concerned, there remain two subdivisions of labor to be treated of: One is confined to what we technically termed the "making of exhibits;" the other to an almost legitimate class of view work. The former necessitated operations that the photographer is seldom called upon to undertake. Whilst writing, I am inclined to take it for granted that you are all as familiar with the details of the Exhibition as myself. I forget that there are many of you who saw little, and others nothing of it. All, however, have read of so much relative to "The Show," that there is no excuse for ignorance in regard to its general characteristics. There is no use in my redescribing to you how the grounds were studded with enormous structures, each having its proper qualities for the display of the products of art, science, and manufactures. I shall assume that you already know of the existence of the Main Building, and of Memorial, Machinery, Horticultural, and Agricultural Halls, and of the uses to which each were applied. Their names alone are sufficiently suggestive. In building these, not the slightest consideration was bestowed upon the requirements of the poor photographer. That individual was considered excessively

fortunate, if allowed to crawl in upon any terms and grapple with his subjects, sometimes under difficulties that no one unversed in the business could understand. To display the innumerable groups of objects collected in the chief buildings, and, in fact, to dispel gloom, it was necessary that long lines of windows should be inserted in their roofs and sides. These gave rise to reflections and counter-reflections that dodged in upon your subject, no matter where you might take your standpoint. To aggravate the evil, the majority of the goods were protected from the dust (and people) by glass show cases, the several plates in which were often set at the most obstinately diverse angles. Some of these cases were very long, often thirty feet and over; some very high. Then there were others fashioned into all sorts of shapes, circular, octagonal, pyramidal, and, in truth, into abortions of every known geometrical figure. The ingenious devisers of these seem to have almost invariably ignored the possibility of any occasion arising that would render it at all desirable either to open them or to remove the glasses. In many instances one could not help being reminded of the anecdote of King James and the apple dumpling, and of the sage monarch's perplexity as to how the apple got in, or of the curious astonishment of the little boys whilst admiring and wondering at the babies in bottles. They were, most of them, hermetically sealed, and shone like so many polished mirrors. Each plane, when looked at superficially, would show equally as well the goods of its opposite neighbor as those which it protected. A good reflected picture of the lines of windows would, if not provided against, be an invariable adjunct in every negative made.

Difficulties did not cease with these annoyances. The halls became so crowded with their different displays, that away from the leading avenues the passageways were really narrow. Again, each foreign department inclosed its respective section with some characteristic structure, that almost always impeded us in some way or another. The growls of the photographer who undertakes to make full-length portraits in an 8 x 10 room, and, in conse-

quence, is in a chronic state of complaint at his want of distance, are as nothing to what were the lamentations of some of our party. Other condiments to the spicy dish of troubles may be added by reference to the mass of spectators that would interfere with us. and the ridiculous requests and demands of those owning the "exhibits," and who employed us to do the work. Photography would be a wonderful art, indeed, if it could satisfactorily comply with all of the requisitions made upon it by those who call it into service. There seems to be popular faith in the belief that an operator can at will render invisible or otherwise certain objects, quite independently of their surroundings, and there are many quite prepared to contest the fact that a camera cannot shoot around a corner. I have frequently known men to abuse a photograph that did not show upon its face articles that could not be seen by the spectator whilst standing upon the spot occupied by the instrument, and who firmly believed in the possibility of its being made a walking machine, that should "show as it goes."

Our list of grievances can be lengthened out indefinitely. During the greater part of "the season" we had the hottest kind of hot weather to contend against. Those of you who live in more temperate portions of the country can scarcely realize the difficulties attendant upon the prosecution of photography when the thermometer registers from 100° to 120° Fahrenheit. Incidentally, I will remark that I have experienced greater extremes of heat and of cold in Philadelphia and its vicinity than in any other portion of the country in which I have lived. Many of the negatives required were of large size (20 x 24 inches), and oftentimes necessitated exposures ranging from one hour to an hour and a half. It was the first and invariable indication of the presence of a photographer or an amateur, to have the question reaching us as to whether we were not using "dry plates." It was difficult to induce the majority of them to believe that there was not some special mystery attached to our operations. Presently I will detail our actual practices. There was so much bustle and stir, so much excitement attached to each day's work,

that time passed very rapidly, and now, before my ink is dry adverting to the hot weather, I have the inclination to tell you of the freezing of our plates during the last few weeks.

I have hinted at the annoyances that the visitors to the Exhibition often occasioned us. A station by a camera was a fine place to study human nature, but by no means a good one to become possessed with any very exalted opinion of it. Early in the season, when the great crowds first commenced to gather, it became very apparent that we should either have to be furnished with official protection or cease our labors. The "Company," in consideration of the great expenses entailed upon it, succeeded in securing several privileges, among them that of roping in such spaces in which the operators were obliged to work. There seems to have developed itself in the minds of vast numbers of the sight-seers, the idea that there should not be a nook or corner in any part of the Centennial grounds or buildings that should in any way be considered private or free from trespass. Accordingly, it established itself as a rule, without exception, that so soon as we made an effort to secure floor space large enough to give us elbow-room, that particular spot would derive such an enhanced value, that most of those in the neighborhood would insist upon their rights of occupancy as well. It seems scarcely credible that obstinacy, well worthy the name of pig-headedness, should have made so public a display of itself. When we have been working upon avenues where our obstructions would not monopolize more than one-fourth the width of the promenade, I have repeatedly seen men, and women too, put themselves to absolute personal inconvenience in bending down and crawling under our ropes in preference to walking a few feet further, and passing behind our apparatus. Press of time or business, involving the necessity of making a beeline, could, in no instance, ever have been adduced, for when remonstrated with, these people were always ready to stand and jangle a longer time than we were disposed to grant them. Their theory invariably worded itself into the proposition, that they had paid fifty

cents admission fee, and were in consequence entitled to go wherever they chose. They never remembered that those who employed us had paid very many thousands of dollars for the scanty privileges allowed. It must not be supposed that the class of people about which I am talking were what we designate "Roughs." There were few of those who ever entered the gates. Rural they may have been, but all of them were much inflated with their sense of the value of self rights. So great was the nuisance, that no matter how well protected an instrument might be by surroundings of chairs and benches, it was still impossible to leave it for five minutes without the absolute certainty of finding it far from its original position upon your return. I have had the legs of a tripod accidentally (?) kicked out of place a dozen times a day, and I can assure you that one did not enjoy a very great sense of personal security, when perched upon some tall step-ladder, with head covered, and intent only upon endeavoring to focus some almost invisible object. Once in awhile accidents did occur. Cameras and less valuable apparatus have been known to be brought in broken; and there are vague traditions at the "studio," that upon a couple of peculiarly aggravating occasions, certain operators, in their zeal to protect the property they had in charge, became involved in something very like mêlêes. One of the most astounding features that developed itself in our contact with the masses, was the unassumed ignorance of many well-dressed and apparently intelligent people, of the appearance and uses of our instruments. I have been repeatedly questioned as to the character of "my show," and asked the price of "a peep." Whilst one day I was surrounded by a bevy of little girls, who, after sorely puzzling their wits with various conjectures as to what I was doing, were finally informed by the brightest one of the party, that she guessed it was "a Punch and Judy."

The guards on duty aided us to a great extent in controlling the innovations of the crowds, and, in fact, the photographic operations became of sufficient importance to warrant the chief of police in issuing a general order to his several commands, enjoining them not only to forbear interference with us, but ordering them to offer protection. They were naturally glad enough to aid us, for they pretty generally understood that a *substantial* appreciation of their services would be sure to follow.

I have just casually referred to the fact of our standing upon ladders in order "to focus." To those of you who have been accustomed only to a gallery routine, this must doubtlessly seem a curious proceeding. The explanation is, that at the commencement of the work, very tall tripods were manufactured expressly for our use by the "Scovill Manufacturing Company," and that they immediately became great favorites. As the legs of each were about nine feet in length, you can readily understand that no animal, other than a giraffe, could stand upon the floor and peek through an instrument placed upon their top. Steps, of course, became a necessary part of our outfit. The moving of the arrangement, backward and forward, or from side to



Photographing an Exhibit.

side, was decidedly more inconvenient than the gentle pushing of an "A. O. Co.'s Cen-

tennial Stand," but then one becomes accustomed to almost anything, and, after short practice, knowing the focal length of our lenses, we became capable of so nearly guessing our proper distance from the subject, that but little after alteration was requisite. The marble floor of Memorial Hall gave us some trouble at first, since the iron points of the legs would insist upon skating over the tiles. It was not long, though, before the necessary amount of ingenuity presented itself, and the difficulty was entirely overcome by using large corks as a species of overshoe. Skill in balancing one's self was advantageous to the operator, and practical familiarity with lines of gravitation not to be despised. Standing upon tiptoe on the topmost step of your ladder, arranging and rearranging probably a mammoth box, stifled and sweating under the confinement of a heavy head cloth, peering on a ground-glass, out of the obscurity depicted on which you could barely trace the outlines of some object unusually bright, confused by the talking, laughing, and uncomplimentary remarks of the people, and the incessant shuffling of their feet in what you knew to be dangerous proximity, jarred oftentimes by the motion of ponderous machinery, or half deadened by the noise of artificial cataracts, your position was not in all cases altogether an enviable one. I was considerably amused at the first day's experience, "in making exhibits," of a friend of mine, a well-known portrait photographer, who seriously assured me that we ought to discard all of the lenses in the establishment, and procure others that would "let in more light." Certes! it would have been a "consummation devoutly to be wished for," but then, opticians, where are ye?

The "Daddy Longlegs," as I used to term a tall tripod, gave one the inestimable advantage of getting above the heads of the people, and again of elevating the camera to a level more nearly the centre of the majority of the cases to be photographed. In every instance, after approximating the distance as nearly as possible, and screwing the box to its place, my first care would be to get the latter scrupulously level. This could only be well done by the aid of a

"spirit level," an article that I urge upon every photographer who ever does outside work to carry constantly with him. The swingbacks attached to our modern cameras have had evil as well as good effects, and I bave seen many an otherwise fine negative absolutely ruined, in regard to artistic qualifications, by their indiscriminate, or, rather, injudicious, use. Tilting the camera, and relying upon the back movements to correct distortion, is a most dangerous experiment when applied to architectural subjects. On the contrary, the raising and lowering of the lens is an invaluable expedient, and no box should be handled by the view operator without its being fitted with a contrivance for the purpose.

The instrument once placed in pretty nearly the position it was destined to occupy, it became necessary to look out for the plaguey reflections, and to devise means for their effectual destruction. You had to remove your steps to the front, perch yourself upon them, and getting your head as closely to the lens as possible, scan with a critical eye every inch of your subject. Then came the busines of erecting screens. These were pieces of gray cloth or black muslin, seamed together until they made expanses, sometimes of twenty feet in length by as many in height. At each end a long pole was attached, and to its top a couple of cords, securely fastened. The whole affair was then raised to the position you desired it to occupy, and the guy ropes-for such the cords became-knotted to large screw-eyes that you had previously inserted in the floor.

Exceptional instances required the erection of three or more of these screens, and once in awhile you would discover that, unfortunately, in your efforts to cut off reflections, you had been cutting off light as well. A very disagreeable class of our customers were those selfish fellows who jealously insisted upon our getting entirely rid of the slightest projection of their neighbor's "exhibits" or signs. This once accomplished they would be pretty sure to cavil at the masses of muslin or drapery necessarily used for the purpose.

Very troublesome arrangements, too, were those large cases lined with looking-glasses or mirrors. Here we had to place a dark

screen immediately in front, and, cutting a hole in it, allow the lens only to show itself.

Every one was anxious to have his commission executed immediately, and gave little consideration to the qualifications of the light. In sunshiny weather we had to be exceedingly careful in regard to the choice of the orders we undertook to fill. In accordance with the locality of the subjects, we had to select either the morning or afternoon for the purpose. I have already spoken of the lines of windows illuminating the buildings. Either one side or the other of these would let in floods of light that, if "worked against," would most assuredly blur every plate exposed to it. I always gave my preferences, as far as photographic facilities were concerned, to working in Agricultural Hall. The construction of the building was entirely different to that of any of the others, and presented decided advantages to us.

The nave and transepts all arose in what you might term a continuation of Gothic arches, that at their junctures were skilfully joined together. The windows were not continuous, but consisted of sashes placed at intervals near the apex of the roof. The entire interior was whitewashed, and as there was in no place a plain, flat wall, but on the contrary, a succession of graceful, though broken, curves, the effect was decidedly pleasing. Toward the latter part of the season the picturesque appearance of the successive arches was much enhanced by the suspension of a series of well-painted and appropriate banners.

I have worked in that building from dawn until dusk (almost) without experiencing any great difficulties from ill-directed lights, and have been obliged to resort to screens upon very few occasions, except where the parties desired to make their "exhibit" an exclusive one. I wish that I could give an equal amount of praise to its external claims. Photographically speaking, they were failures, but of that anon.

(To be continued.)

W. E. Rhodes, a photographer, was murdered by robbers in his room, at Quincy, Ill., last night. There is no clue to the murderers.—*Phila. Ledger*, Jan. 23d.

### SOME THINGS SEEN AND FELT.

BY I. B. WEBSTER.

Not having written down, for others to read, thoughts that have come to me while in "thoughtful mood," and wishing to do something in that way now, I find it difficult to go back and gather up some of those that were so full of interest to a photographic student. I have been a quiet looker-on for some time, and what I have seen has fairly startled me. Startled? Yes, that is the word, for, notwithstanding I have written so much and so often, and spoken so much and so often upon the necessity of careful manipulations, and cleanliness in the dark-room, light-room, printing-room, finishing-room, and reception and business-room, I was not prepared to see so much evil result from a lack of care in the manipulations; and a want of cleanliness in every department, as I have seen during the past two years. To tell what I have felt after having seen these things is not possible, but my heart cries out within me, and suggests "cleaning out." Just look into that dark-room and see the filth. Why it is nauseating to the whole five senses, and yet the "botch" can't explain the holes in the negatives, nor the map of the world on them, nor the granulations, nor the stains, nor the lack of every good quality. Now look into the lightroom: screens hanging awry, cameras broken, shields eaten and filthy, head-cloths torn and "nasty," backgrounds showing the effects of a heavy storm, and yet the "Muggins" thinks every sitter moves on him and the light is too weak; "come at some other time" being his motto. Then turn to the printer, and if you can crawl up to his place through the dirt, you will find him trying to print 20 negatives with two presses in good order and just 38 all out of order, with hinges broken, boxes warped, and catches off, the backs of the negatives dirty, the medallions ragged, the tinting glasses filthy, and trimmers so dull you might safely ride on them. At the toning and washing sink and bench is a perfect mass of slops, from silver, gold, carbonate, and hypo, the prints showing soda stains, silver stains, iron stains, and every conceivable stain, with millions of blisters, and yet "Scrub" will say he can't see where they come from. The finishing, which ought to be neat in every particular, is a mussy combination of slushiness, filth, and nastiness that would do credit to the rag-gatherer of the gutters. Can any of my brother photographers tell me what I felt? Out upon such men. Get on the rock-pile, scrape the streets, saw wood, get a flat, launch it upon the river, and float out to sea, where there is plenty of water, and see if you can get clean. I do not want any more of it in mine.

LOUISVILLE, December 26th, 1876.

### A NEW PROCESS TRAP.

THE photographers of America are, as the dulness of the times grows more and more intense, becoming more and more excited on the topic of processes, and the days of ten to twelve years ago, when any sort of a process offered for sale was snapped at with the avidity of a mud-pout after any stray bait which came in his way, seem to be returning. No wonder at this, when we see announced, by circular and otherwise, the fact that at a certain time some great planet from abroad will make his appearance in our midst, and cause another eclipse upon everything else in existence by the brilliancy of his own projects. Many and many a time have we been led to look for great results from such adventurers, but from causes which have not yet been explained by the management, as a usual thing they have failed to keep their promise, thus shamefully insulting all lovers of good photography.

Our latest star in this direction we need not name; he is well known, not by the success which he has accomplished, but by the amount of money which he has expended, in order to make himself well known in black and white. Ever since his début into this atmosphere there has been an active discussion as to his pretensions, some firmly believing that all he said was true, while others failed to come to time on the subject; some insisted that there was no such person at all, that he was only an invention of some of our contemporaries, done

to excite amateur photographers and others, and to make them expect what never could be verified. But this latter class was wrong; a number of our fraternity in New York and Boston, and it may be in Philadelphia, and most certainly in St. Louis, have due cause to feel the shock of this gentleman's luminous presence. If they have not, certainly their pocketbooks have. He makes angel visits to the various cities, and if he can strike cometlike with his tail one good satellite in each of them he is content, and like a meteor is gone, while all the neighbors of the lucky satellite are seen at their back windows, or upon their roofs, with their cameras before them, trying to focus the active foreign planet, being content if they can only get a feeble image of the nether portion of his coat-tail! While they are doing this a flighty gentleman may be seen in the act of drawing his bedroom curtains in his hotel in a neighboring city. He belongs to the class of planets known as the "quick transit," and like the meteor which passed over our continent a few evenings ago, he is never there when you go where he is. The reasons for this are obvious. It would not be safe for him to stay in any one place any length of time, because of the utter consternation and destruction which would ensue. This causes some people to often doubt his existence, but those who have seen him, and parted with a portion of their funds through him, have no doubts of his existence. We are assured that he does exist. As all artistic sense is a matter of feeling, we have no doubt that many feel his existence. While our quick-moving planet offers to enlighten the whole fraternity, his method of making his privileges exclusive is resulting in great disappointment; and not only those whom he has favored, but those whom he has not, would, on account of his broken promises, be glad to demonstrate to him the power of photography in a court of law if they could. Alas! for the malign and far-reaching influence of dishonesty and pretentiousness. All over the country the men who have the greatest distinction as process-buyers are sweeping the heavens and the earth, camera in hand, hoping to eatch an image of this active vender; and even the excellency of

their lenses, and their familiarity with the habits and dwelling-places of the very timid process man, are without avail; and they go home, after sporting in this way from morning until night, to their wives, and as they sit down to their supper tables in their photographic clothes, with the glow of healthful excitement upon their cheeks, they answer, as does Mr. Cyanide, the modest inquiry of Mrs. Cyanide, with cheerful response, "Almost caught an image of the lower button on his coat-tail. developing the plate I thought I had the whole of his coat-tail, and almost one-half of his waist-button, but alas, they were only spots in the collodion film." It is no wonder that all his help admire the skill and prowess of so successful a process-buying photographer as Mr. Cyanide, even if he did forget his regular business, and forget to pay his stock bill, and to subscribe for the magazines, in his anxiety to obtain this process. He was easily pardoned by his helpers and by his wife; his method was not that of madness, but that of a true, chivalrous sportsman, who would have disdained to ensnare a process by the tricky means employed by the subscribers to the Philadelphia Photographer, as much as he would to have hunted for clamshell markings in cold weather, or to have wasted his time in searching for blisters or the remains of his carbon tissue on the floor in warm weather. But this amusement is all to come to an end. We are told that a soulless photographer in St. Louis, who pretends to call himself an inventive genius, has been led by his desire to settle the question of our foreign friend's existence, to invent a process trap, which, if it should come into general use, would speedily capture every process not yet in the catalogue or that may ever be in the catalogue.

This new trap consists of a photographic camera, provided with clockwork and other infernal devices, which is to be placed underneath the front door of the photographic studio, and to it is to be attached a little bell, this bell to connect with a wire leading to the dark-room of the photographer. Upon the approach of any process-vender the clockwork moves, and in five seconds touches the spring which sounds

the alarm, and instantly, if he is ready and enterprising in such matters, the photographer may be at the front window with his camera, and seize the picture of the process-vender. If he is accustomed to having a chance to buy all the processes that come along, he need not think this device so much to his advantage.

Our inventor, whose name we suppress for the present, like all unfortunate photographic patentees, does not explain fully his device, and therefore we presume that, before long, he will be asking everybody for a license fee for it, and suing for infringement; all timid asteroids should take notice and get out of the way. We would at once suggest an improvement on this apparatus, though we trust the American Optical Company will not censure us for doing it. It is in order to enable any one to do without the expense of one of the cameras, to have an arrangement connected with the clockwork that, instead of springing the bell and sounding the alarm, will displace the slide in the plate-holder, and make the exposure; and, moreover, if the first exposure should fail to get more than the coat-tail, might be made to have a fresh plate advance into position, and the trap be ready for another action. We would suggest another improvement: that the trap be left constantly exposed night and day, for we understand that some processes can be worked as well by night as by daytime. There is no reason to suppose that this trap will not do all that its inventor claims. It will not be a species of pound net which will capture indiscriminately everything which comes along. No doubt every photographer will devoutly wish that it could also catch the photographic patentee. We have racked our brains to discover some method by which we could make still further improvement, and accomplish this desired result, but we give it up; let some one more intelligent and worthy go to work at it, and give us their ideas. It may be very true that the midnight wanderer and the crusading photographer's wife may occasionally enter into this camera, and be mistaken for curious process-sellers, and thus occasionally disappoint the photographer, yet we are assured

that the apparatus will continue to gather in without fail all the process-sellers who come along, and thus render itself able to do all that is promised for it. Of course there are hundreds of incompetent photographers, men who cannot focus a sharp image even with the best lens in existence, who will provide themselves with these traps, and fancy that they are smarter than any of their rivals.

We are well aware of the fact that too much fishing exterminates the fish from many of our rivers, and that too much catching, in some sections, has entirely ridden them of both process-men and patentmen. In such places, our new patentee will find but little sale for his traps, unless it be that they are purchased for ornament. We see no hope in this matter for the enemy, unless it is to buy up this trap inventor at once, and before it is too late. We suggest to our benefactor, that he also secure his patent for England especially and the rest of the world—"there is millions in it."

If our foreign friend wishes to uphold the dignity of process peddling, he ought to petition Congress for the appointment of a commission with power to prevent the introduction of these traps, and to preserve photographers in a condition to "gobble" any sort of game of this kind that comes along. If this is not done before very long, we shall see a process trap set in front of every photographic studio in America, and the time will soon come when our foreign friend will find his vocation to fade away, even like unto the fated silver-print; or else to be found melted upon the floor some hot summer morning, even like unto the famous carbon tissue; and he will be compelled to mourn over the total destruction of his business in America, the land after whose fleshpots the foreign process-vender is continually hankering.

What will be the dreadful consequence of this invention we know not. We have never been much of an advocate of unstable photographic patents, and yet we do almost feel inclined to wish "God speed" to our nameless inventor who has such a promising future before him.

Infringers, look out!

#### SCATTERED THOUGHTS.

FIRST PAPER.
BY F. M. SPENCER.

It is quite safe to say that the majority of photographers do not secure the full possibilities of their negatives in their prints, that they are underrating the whole subject of printing, in many instances, no doubt, losing their reputations and custom, without ever knowing why. Some proprietors are constantly changing operators because their negatives do not produce prints like those from Kurtz's or Sarony's, when nothing near the possibilities of the negatives they are making is realized in printing. Others are always in a peck of trouble about their albumen paper, or the printing bath, the retouching, etc., etc. Let us see if we can find out some of the causes for all this complaint and failure.

We will suppose that the posing, lighting, and development have been right to secure good results. If the expression, pose, and modulation of the figure are gratifying, do not throw it into the sink with an invective because of some little defect, until quite satisfied that it can in no way be printed with the defect left out or printed out; even then spare the invective. Invectives are demoralizing, and a succession of failures will most likely follow. Having decided to keep the negative, have it judiciously retouched, and then decide how to have it printed; if the medallion style, whether round or square, or a more or less elongated oval would secure the best result, perhaps an oval with vignette, or a plain vignette in gray will be just the thing, or, as a last resort, invent something, and by proceeding in the same manner with each individual negative, we shall soon be master of a multitude of valuable expedients, and acquire a mechanical skill of incalculable value. Probably the art of silver printing has nowhere been carried to so high a state of perfection as by Mr F. Gutekunst, of Philadelphia.

It has long seemed to be the fate of our art to be confined to comparatively small sizes of prints, owing to the great expense and difficulty of securing an immense negative, but Mr. Gutekunst got the bull by the

horns, and has actually printed on a single sheet of albumen paper, a print ten feet one inch in length, and eighteen inches wide, and from seven negatives, without a line or defect to show where the negatives joined. How was it done? The negatives could not have been joined and printed from all at once, for a distinct line would have shown between, and if printed from separately a special printing-frame must have been constructed, with pockets at the ends to hold the surplus paper, and keep it from the light, and involving some nice shading off at the ends and skies of the negatives, and careful superimposing of the duplicate portion of the succeeding negatives. However it was accomplished, it evinces a high order of skill and mechanical dexterity. The subject is a panoramic view of the Centennial grounds from George's Hill, and the print I saw was first-class in every respect, excepting that necessity perhaps compelled the use of the same cloud negative twice, which somewhat marred the beauty of the grandest print ever made by photography, a defect Mr. Gutekunst will be prepared to avoid in a repetition of the work.

Although this picture has been noticed in the public prints, and at least one photographic journal, no allusion has been made to where the paper was procured, and it doubtless must be interesting to many to know that the paper was albumenized by Mr. John R. Clemons, and the brilliancy of the print and beauty of its tone speak highly for the success of the albumenizer as well as the printer. Philadelphia may well be proud of both; it signalizes a great advance step, a new departure in the art of photographic printing. It seems a little singular that there should be so large a demand for foreign papers when such excellent paper can be procured at home, at a saving of many thousands of dollars to this country annually, when doubtless the only superiority of the foreign is its age and accent. Remedy, buy home papers, and keep them a few months to get mellow, or let the manufacturer keep a few months' stock ahead, and stop the big tax to foreign goods, and so help restore prosperity to the country, for the difference between the plain and albumenized paper in price is a gold tax to foreign industry at the expense of our own. But should it become necessary to work a freshly made paper that will not give satisfactory results without it, a few ounces of alcohol in the silver bath will almost supply all the good qualities of age to the paper, and remove all tendency of the albumen to dissolve into the bath.

 Silver,
 .
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 480 grains,

 Water,
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 12 ounces,

 Alcohol,
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 .
 ½ to 1 ounce,

 Aqua Anmonia,
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 .
 5 drops,

is a good formula for any brand of paper, varying the quantity of silver to suit the brand, season, and condition of the atmosphere as to moisture.

All the albumen on the paper must be thoroughly coagulated, or it will dissolve out at some stage of the process at the expense of the print. All the chlorides in the albumen should become silver chloride, to insure a full rich print. If too many sheets of paper are floated without stirring the bath, or strengthening, it will either print measly, or the albumen be dissolved off the paper. It may have troubled many to account for the uneven printing called measles; why does it not all silver alike? The moment a sheet of paper is floated currents occur, and if the bath be rich in silver, it acts on the principle of endosmosis and exosmosis in the pores of the albumen, but as soon as the surface of the bath becomes weak, the stronger solution underlying the surface of the bath has to break up through the surface strata, causing eruptive currents, and the strong spots on the paper represent the points receiving the upward currents, and the weak spots represent that which gets its scanty supply of silver from the downward or eddying currents. After the paper has been hung up to drain a few minutes, it should be quickly and thoroughly dried, and may be fumed from seven to fifteen minutes; in hot weather it is better to fume only as fast as used, as it discolors faster after fuming. Thorough washing before toning will save gold, and remove one fruitful cause of fading. Never use hypo twice; it is outrageously expensive. The final washing should be thorough, and as quickly done as is consistent with thoroughness; in the winter, when the water is cold, the washing may be kept up for ten or twelve hours without harm, but in warm weather four or five hours should suffice.

January 8th, 1877.

#### SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday, January 4th, 1877. The minutes of the last meeting were read and approved.

The subject of a public exhibition of lantern slides was brought up for discussion. On motion, the chair appointed a committee consisting of Messrs. Seiler, Wilcocks, Corlies, and Young, to arrange for an exhibition in the lecture-room of the Franklin Institute.

The President read a letter from Mr. Edward L. Wilson, in which he kindly placed at the disposal of the Society for exhibition a large number of slides of Centennial subjects.

On motion, it was

Resolved, That the slides to be exhibited be limited to Centennial subjects exclusively.

The Treasurer, on behalf of several members of the Society, presented a frame containing nine views, by Mr. Payne Jennings, of Dublin, which had attracted much attention in Photographic Hall, at the Centennial Exhibition, during the summer. On motion, the gift was accepted, and a vote of thanks tendered to the contributors.

Mr. McCollin exhibited some specimens of the Lambertype or chromotype printing, and a résumé of the process. It seemed to be as well adapted to transparencies on glass as paper prints.

The President introduced Mr. Louis Gutekunst, who had printed the mammoth view of the Centennial grounds from George's Hill, referred to in the minutes of the last meeting of the Society. Mr. Gutekunst described the operation as follows: Three tanks of poplar wood well coated with asphaltum varnish were first made, each measuring about 11 feet by 30 inches. One was used for silvering, another for toning, and the third for fixing and washing. In silvering the paper, it was rolled up into a scroll and held by one per-

son at the end of the large dish, while an assistant laid the end of the paper on the solution, and drew it along towards the other end of the dish, the first person meanwhile gradually unrolling the paper as it moved along. About two minutes were occupied in laying down the paper, and it was then allowed to float three minutes on the solution. It was lifted off by three persons by its long side, and suspended to spring-clips hung from a wire above the dish. When dry it was again rolled up into an open roll (i. e., so that no part of the paper touched any other part), and thus put into the fuming-box. printing, one of the old-fashioned "blocks" was used, and the unexposed part of the paper kept coiled up in a sort of shallow box placed under the brock, while the negative with the portion of paper allotted to it was exposed to light on the upper surface. As the negatives were changed, the printed portion was moved off into a similar shallow box at the other end of the block, a black cloth being thrown over the overlapping portion at each end to exclude light. was washed and toned as usual, but when transferred to the fixing bath it had to be laid by its middle over a wooden pole and so lifted. Two hours and a half were occupied in the printing in a good light, an extra two hours being required when skies were printed in. Mr. Gutekunst alluded to the unanimity of action required on the part of the assistants, no one man being able to handle such an immense sheet un-

On motion, a vote of thanks was tendered to Mr. Gutekunst for his interesting description.

The Secretary exhibited a scrap-book containing about eighty views, made by himself, in Belgium, Switzerland, and France, during the past summer.

After some remarks by the President on the subject of dry processes, and in which he alluded to the excellent results obtained by Mr. Hewitt on collodio-albumen plates, this gentleman was requested to read a paper on this process at the next meeting.

On motion, adjourned.

ELLERSLIE WALLACE, JR., Recording Secretary.

Boston, January 5th, 1877.

THE regular monthly meeting of the Boston Photographic Society was held at the studio of J. W. Black, Friday evening, January 5th, 1877, President French in the chair.

The records of the previous meeting were read and approved.

The first business in order was attention to claims for the prize offered by the Society for the best improvement or invention in aid of photography, by Mr. C. F. Richardson, for the production of a useful and valuable improvement in photography, being a sensitized paper which keeps well for from one to three months or more, and prints and tones readily, while there is no loss of quality in the print in any respect, the method of preparing the paper being retained as a trade secret.

Also Mr. D. T. Burrell offered us the most valuable recent benefit to the art of photography, his photographic chart of ribbons and dress goods, both of which were referred to the Committee on Prize.

Samples of pictures were exhibited by Mr. Black printed on paper prepared by Mr. Richardson; also pictures from the same negatives printed on paper prepared by himself, all the prints being toned at the same time, the prints on Mr. Richardson's paper being fully equal to those printed on paper prepared by Mr. Black.

Remarks complimentary to Mr. Richardson's paper were made by Mr. Southworth, also by Mr. Rowell, who said that he had tried some of the paper, and found it to work successfully.

Mr. Black said that he had given considerable attention to the use of the paper, and was pleased with it.

Mr. Phillips said he had tried the Dresden and other double albumenized papers, prepared by Mr. Richardson, but found the single albumenized paper worked the best and kept the longest.

It was moved by Mr. Southworth, and voted, that the Society procure such an amount of the paper as would be needed to distribute among six photographers to print from, and also of their own paper, and bring in and show the Society once a month, in

order to obtain a correct understanding of its average working qualities.

In the discussion on the merits of the paper, Mr. Black's experience had been similar to Mr. Rowell's, who said he had often thought he had found a good thing when he was mistaken; he had got results but could not tell why.

Mr. Black said that twenty years ago, when he knew less than now, he would make up one-half dozen bottles of collodion, and none of them would work first rate; then he would mix them all together, and they would work finely.

Mr. Rowell remarked that if you ask a chemist about things, he would go a little way, but then would be lost; would not know as well as yourself.

Mr. Black said he had been thirty years in photography, but did not know much of it.

In speaking of the fading of prints, Mr. Black thought no amount of washing would save them from fading; he thought dampness and coal gas caused a great deal of fading.

Mr. T. R. Burnham said it was in the experience of every photographer, that pictures on plain paper kept better than pictures on albumenized paper, from the fact that a very large percentage of the albumen was water, and was a much less reliable surface than the plain paper.

I omitted, by mistake, to say in my last, that when the Messrs. Lamberts were here, they received a vote of thanks from our Society for exhibiting to us their fine collection of pictures, and for the very full and minute explanation of their processes. Also a request was made of them for their own pictures, to put in the Society album for preservation.

A. N. HARDY, Secretary.

PHILADELPHIA, January 9th, 1877.

THE stated meeting of the Pennsylvania Photographic Association was held at No. 1427 Ridge Avenue. President H. S. Keller in the chair.

Minutes of last meeting read and approved. Auditing Committee reported, and accounts found correct.

Reports of the Secretary and Treasurer read and accepted.

A print was exhibited showing a sunk-in appearance in the shadows, caused by using a strong silver solution and not floating long enough, and at a cold temperature. Mr. Marston remarked that weak silver solutions required short floating, and strong solutions long floating, as strong silver coagulates the albumen quicker, making a slow formation of chloride of silver, and weak silver the reverse.

Mr. McCollin exhibited several prints made by the Lambertype process, and described the process to the members.

On motion, adjourned.

CHARLES EVANS,
Secretary,
814 Chestnut Street.

#### VIOLET LIGHT.

As this subject is now attracting some attention in Europe, and we of America are anxious to have the benefit of any improvements that may facilicitate in any way the operations of photography, I have made a simple experiment in order to test the action of violet light on the iodo-bromide of silver. With a stereoscopic camera several trials were made on a winter landscape as follows: A violet glass was placed in front of one lens, and a blue glass in front of the other, exposed twenty seconds. The end of the plate exposed to blue light flashed out first, and was somewhat overdone, while the violet end developed gradually, and came up about right. A second trial was made with the violet glass covering one lens, and the other uncovered; with the same exposure as before, the end of the plate exposed to white light flashed out with great rapidity, and had attained its full development before the details of dark objects on the violet end began to make their appearance. A third trial was made with the blue glass covering one lens; the result of this was about the same difference as between the blue and violet, i. e., the blue appeared to be as much slower than the white, as the violet was slower than the blue. These experiments showed the correct time of exposure for each light to be about as follows, under the same conditions: White light, ten seconds; blue light, fifteen seconds; violet light, twenty seconds.

I have no reason to suppose that experiments under a skylight with white, blue, and violet glasses, each in turn, would result any differently, for blue glass has been tried to the entire satisfaction of nearly all the older American photographers, and it seems difficult to believe that any violet tint can be more actinic than blue, when the former must be produced by a mixture of red, the least actinic of all the colors. The experiments referred to above harmonize with this theory, as do also the very exhaustive experiments of Mr. Thomas Gaffield, as explained by him in the Philadelphia Photographer for October, 1876. He there demonstrates that blue is the most actinic of all the colors, while violet stands next, and yellow next to that. Red and blue in certain proportions make violet, and we find these colors in Mr. Gaffield's table, when combined, i. e., a red and blue glass, stand next to the least actinic on the scale. Experiments, therefore, appear to agree with theory in placing violet light below that of blue in actinic power.

This, however, is all contrary to the results claimed to have been secured by M. Scotellari, and substantiated by his "skilful chemist," M. Trat, which were, "that violet light acts much more rapidly than white or blue light, which diminishes about one-half the time of exposure."

Again, in giving his reasons for this method of lighting, he says: "The violet rays of the solar spectrum, having more than all others chemical properties, and being the rays containing the least caloric, I have conceived the idea of applying this tint to the glass of the studio." This, in regard to the heat of the violet rays, does not quite agree with the experiments of Sir W. Herschel, who found the lowest temperature in the blue rays, which marked 56°, while the red, on the lower end of the spectrum, gave a temperature of 79°. This is in accordance with the theory of painters and colorists, that blue is the coolest color.

However, M. Scotellari may have discovered a tint which possesses the peculiar

quality which he claims for it, and is really superior to white or blue light in actinism; or may it be possible that violet light reflected from the sitter, or objects lighted by it, acquires properties not possessed by the same light when conveyed directly to the plate? Be this as it may, I would not advise any photographer to take out his white glass and put in violet, until he has the advantages more satisfactorily demonstrated.

R. J. C.

#### MORE ABOUT THE LAMBERTYPE.

EDITOR PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: I thank you for the "sugar coating" to your comments on my letter. You might have given me a "dose" less pleasant to take. But I fear I must still ask, space to more clearly define my position.

I am not in any sense talking for the Messrs: Lambert's interests; they seem quite capable of taking care of their own.

I am looking out for my own interests, in connection with the common interests of all the licensees with which my interests must hereafter be more or less identified.

Neither do I complain, nor admit that I have been "sold" or "taken in," but I do insist that if I have been, you bear about the same relation to me regarding it that the gentleman did to his visiting friend, who went to stroll in the garden at twilight, and inadvertently fell into an excavation half full of mud and water. While the guest was scrambling out, the host hurried up, exclaiming: "Oh, George, I meant to have told you about that hole!" "Never mind," was the cheerful answer, "I've found it."

Permit me to explain, that while I have read in the *Photographer*, and under the signature of its editor, the most exalted and unmistakable commendations of carbon, I have never seen any equivalent disclaimer or recantation of opinion as to its merits, and I profess to be a constant and attentive reader of its pages. Let us quote: the italics are mine:

"The carbon printing process—the production of permanent photographs possessing beauties never reached in silver printing . . . . is now largely practiced in England,

France, and Germany, and is being rapidly introduced into this country.

"It is easy, beautiful, convenient, can print in all weathers, no discolorations, measles, fading, bad tones, or any of the evils of the silver printing process."

That is high praise, and claims more than is now claimed for it, even with all recent improvements; and if it was true then, I can see no reason why it is not equally true to-day.

But if the editor of the *Photographer* found that he was, or believed that he had been, misleading his readers, should not he have proclaimed his "change of base," with no uncertain sound, but "with a voice as trumpet loud," to make sure that none be misled by the former so fatally mistaken advice?

Yet, on the contrary, if I remember rightly, the *Photographer* praised carbon printing during the preparation for the Centennial, hoping there would be many exhibitors of its products, as there were; and admitted a letter from the Messrs. Rowell recommending it, without any earnest word of caution against its deceptive claims, although even then aware that the enemy was coming to despoil our already impoverished brethren.

The *Photographer* has always been authority with me, and I should be very sorry now to lose faith in its frankness and sincerity.

I have no doubt the success of the Messrs. Lambert in disposing of three hundred licenses within half a year, among the best photographers of the United States, was largely due to your teachings, keeping awake among them, to quote your Maud Muller, the desire for "something better than they had known" in the way of permanent photography.

I cannot believe your opposition to carbon printing springs from similar motives to the opposers of "rapid transit" here, but must believe it springs from a sincere desire to maintain the right, though acting perhaps on mistaken opinions. There is no doubt but the Messrs. Lambert claim more for their process than its merits fully warrant. It cannot be taken up as easily, nor

conducted as smoothly, by ordinary workmen, as they assert. It has many difficulties, and will require constant care and skill to work it successfully.

But exaggerated praise of their wares is a characteristic of all venders of patents and processes, and the only safe rule is to always make half allowance, even where you believe they intend to tell the truth. I made that allowance in their case from the first, and still decided, that if only half what they claimed, it was worth twice what they asked.

Although I do not read the British Journal of Photography regularly, I see it frequently, and I find no signs of diminished interest in carbon through its pages, but the contrary; and certainly our Centennial Exhibition was full of evidence that all progressive photographers ought to use the process to keep with the front rank.

And although the five patents are mostly on little things, they are yet essential things—as the needle to the sewing-machine—and I do not see that publishing the specifications lessens their value, or gives any one the right to use them without a license.

Which may I understand to be your intention? To discourage every one from using them at all; or to encourage every one to use them freely without reference to the patent claims?

In conclusion, why I have not as yet used the process. Because on account of diminished force I have narrowed down my working force, until I am personally more closely occupied than I was in busy times; moreover, I am no printer, never printed a hundred pictures in my life, and my printer, with his boy assistants, is so occupied that he has no time for a process he does not believe in, and don't want to be bothered with; and I have not felt warranted in the expense of a special outfit; and a special man to work it, in view of the fact that we are promised a large and well-appointed printing establishment for the carbon work of all the licensees in New York, something on the plan of Hearn's for photography, to be opened and conducted by one of the licensees this spring, as the best plan for all.

The adoption of a process so radically

different in principle and practice from those in use, is sure of opposition from the inertia of routine workmen, and sure to be resisted by those already skilled in equivalent methods, that seem easier, because their difficulties have been conquered and forgotten.

Am I absolved, on this showing, for not rushing to you with specimens, although still believing in the merits of carbon?

Yours sincerely,

E. K. Hough.

New York, Jan. 16th, 1877.

In answer to the above we have to say, that we give place to it because of our esteem for the author; yet we do not consider him a competent judge of the carbon process from actual experience, because by his own acknowledgment he says that he has had none. He forgets that we are not discussing either Mr. Lambert or his dodges; they may both be very valuable and very useful; but our point is that the carbon process is not one that can be worked to advantage in this climate all the year round, and for that reason that photographers should discuss the matter well in their minds before purchasing. What use would there be for our entering "an equivalent disclaimer or recantation " of opinion as to the merits of the carbon process, when the mightiest recantation possible, namely, silence, has already been accorded it for a number of years past? And why should our friend Mr. Hough, or any one else, become so suddenly taken with the merits of the aforesaid process? And would he have done so, and hungered and thirsted after it, if it had not been for the inflammatory circulars of the aforesaid Mr. Lambert? Was it Mr. Lambert, or was it his desire to obtain the carbon process that made him resurrect our remarks, made years ago, as quoted? Why should be want the carbon process at all? Why forsake his old friend, the silver process, which is good and beautiful, and which has greatly improved since our praise of carbon, and made carbon unnecessary?

Mr. Hough does not remember rightly when he says that we praised carbon printing during the preparation for the Centennial? We admitted Mr. Rowell's opinion for what it was worth, and no editor by any

means indorses all of the ideas advanced by his correspondents in his pages; if he did, he would be a most unhappy man. Does any one think that because we allow Mr. Hough to express his faith in carbon in our pages that we thus confess our faith in it? We do not accept the responsibility, therefore, which Mr. Hough places upon us, neither do we believe that any remarks of ours have caused any one to purchase the Lambert process. We yield all that persuasive power to Mr. Lambert himself. As to the last query of Mr. Hough, we have to say that it is our intention neither to discourage any one from using the carbon process, or to encourage them to use it without reference to the patent claims; we simply desire, as stated in our last-number, that both sides should be heard, since Mr. Lambert only gives his side of the question. Then our readers may do as they please, for our responsibility ends, our duty is done. If we find that a large number of them are purchasers of this process, we shall begin to provide them with such food as will do them good, on the carbon process. As time only can tell what their experience shall be, since the great tournament in New York produced more medals than good results, we must wait; and we trust that Mr. Hough will have the same patience that we have in the matter. As to his final explanation, it is entirely satisfactory and acceptable.

#### MORE ABOUT VIOLET GLASS.

Boston, January 18th, 1877.

Mr. Editor; To meet the idea expressed in my friend's (Mr. Stebbing) letter in your December number, I promised in my last note to you to make an experiment upon the comparative action of the chemical rays of sunlight upon iodide and bromide of silver when transmitted through violet and colorless glass.

I made the experiment with Mr. Marshall in his photographic rooms a few days ago, by placing a light shade of violet glass and a colorless glass side by side over a wet, sensitized plate, and then exposing it to light for about a second by pulling out the slide of the shield, and pushing it back again immediately. The result showed,

just as I had expected, the fallacy of the claims of M. Scotellari. The plate under the colorless glass was darkened much more sensibly than the portion under the violet, thus proving the inferiority of the latter, which cut off a considerable proportion of the chemical rays.

From all that I can learn from intelligent photographers and photographic journals, it is a most surprising thing that in France, a country so advanced in scientific knowledge, any company of photographers could be found to give audience to the singular and oft-refuted claims made by M. Scotellari.

It is undoutedly true that violet or other colored screens may be used with advantage in cutting off too much, or in making an even diffusion of light upon the face of a sitter; but it can never be true, while two from six leave a less number than six, that the cutting off of a third, or any fraction, of the chemical rays of sunlight by violet glass in a screen or skylight can enable the photographer to obtain more rapid or effective results. The use of screens of various colors and in varying positions, according to the more or less favorable conditions of the weather, or the location of the studio, is almost universal with good photographic artists, and we do not see any novelty in M. Scotellari's idea, or any peg to hang a patent upon. THOMAS GAFFIELD.

#### Anatomy, Phrenology, and Physiognomy,

AND THEIR RELATIONS TO PHOTOGRAPHY.

BY W. H. LIPTON.

No. 1.

WITHIN the last decade many new and valuable works have been written in the interests of our chosen vocation, and articles of great value and strength have filled the pages of the various journals. Valuable formulæ upon every branch of the art have been published in such variety as to cause confusion. Numerous articles are to be found in every photographic library, treating upon the chemistry of photography, chiaroscuro, composition, position, art principles, and manipulation in minutiæ. Sterling advice has been generously contrib-

uted by the eminently successful business men of the profession, giving the various modes of conducting their popular establishments.

Not a page has been written in vain; every one has carried its influence for good here or there. Let those who will, take the trouble to compare the productions of the average photographer of to-day with the productions of the average photographer of ten years ago. Will they, dare they, then dispute that within that time, photography has made grand and glorious strides on ward and upward? Were we to ask what one thing has contributed more than another towards producing this result, we think the answer would be universal, "the literature of our profession." And whilst each of the few publishers have won the respect and admiration of the thousands of photographers who have sought and found light through their noble efforts, it is unnecessary to ask here who deserves it most. Granting to each all due praise for their unselfish labors, and notwithstanding the large number and apparent completeness of their photographic works, there are still some ideas which we have never seen ventilated, and we have read nearly every American publication and a number of foreign works relating to the art. These are in reference to the subjects which head this article, upon which we propose to write several papers, if acceptable to our editor and his readers. In touching upon the matters treated in these articles we do so timidly, knowing full well our inability to do them justice; nor do we expect to impart anything of much value to the intelligent reader, but we do hope that our feeble attempts may call forth the views of some of the capable men within our ranks, who are, by experience and education, fitted to write intelligently upon these important subjects, namely, anatómy, phrenology, and physiognomy.

#### ANATOMY.

In connection with my last article for Mosaics, I asserted that our finest artist-photographers possessed a certain knowledge of the sciences of anatomy, phrenology, and physiognomy. This assertion is confirmed by the fidelity with which they copy the

human face divine in its unlimited variety of form and expression. This knowledge has, doubtless, been possessed in various ways. Some have obtained it from the reading and study of works treating upon these sciences; others may have acquired it from observation; whilst with a much greater number, perhaps, it is purely instinctive. When or how this information was obtained by our eminent co-laborers is of little or no value to the reader, but, wherein the study of these sciences may benefit him, is what we shall endeavor to indicate; and, before we proceed farther, will state in what departments of the business this knowledge is most essential. A good understanding of human nature will do for the party in charge of the reception-room, but, with the positionist under the skylight, the dark-room manipulator, the retoucher, and the printer, a knowledge of these sciences is necessary to produce work up to the requirements of the day.

Anatomy should be studied by the poser, that he may, by proper lighting and posing, give value to the parts which might seem unimportant, as the bones of the forehead, which form the planes of light and shade; the cheek-bones, which contribute so materially to resemblance, and give character to the face; the jaw, the angles of which can be easily destroyed by inattention; and the bone of the nose, which should be always neatly rendered. An extraordinary development in any part of the anatomy may be subdued by position, as the muscles of the neck, which are sometimes so prominent, if not properly handled. It also teaches us the natural position of the figure, so that nothing is on a strain, when repose is desired, and the correct form when in action, as we can place a limb in position without the muscles being in action in some cases. The ideas of the dark-room manipulator should not be inferior to those of the poser, or every point of excellence which has with so much care and study been secured in the latent image upon the plate, may be entirely destroyed by careless and indifferent development.

When a negative is placed in the hands of the retoucher, he should not only be able to produce a fine artistic finish, but his knowledge of anatomy should enable him to preserve truthfully every feature, that the resemblance may be as near perfect as possible. A perfectly smooth and round effect of forehead and face should be avoided, and instead, every plane of light and shade carefully rendered. He should be able to improve expression, subdue physical defects and deformities, or give value to any part or feature when desired.

The writer is familiarly acquainted with a retoucher, who until recently thought he "knew it all," when his attention was called to the planes of the forehead, confessed his ignorance of the necessity of preserving anything of the kind, but supposed that what was required of him was a perfectly smooth, round, sand-papered effect, as the most desirable.

Now as to the printer. Some photographers consider any boy, with a little drilling, capable of taking charge of this branch of the business; but unless the printer has the feeling of an artist, how can he be expected to produce prints bringing out all the beauties of the negative?

To sum up, if you would have character, artistic merit, resemblance, and would prevent all faces from looking alike insipid, preserve the anatomy.

Phrenology and physiognomy will be discussed next month.

GETTYSBURG, Jan. 16th, 1877.

# TABLE TALK.

THE ST. LOUIS PRACTICAL PHOTOGRAPHER.—This new candidate for photographic favor has been received, and we find it well filled with a variety of articles relating to historical and practical photography.

Mr. J. H. Fitzgibbon, the editor of this new journal, has had a long experience in the practice of photography, which will doubtless be of great service to him in his new profession. In looking over the circular received some time since announcing the proposed advent of our contemporary, we found that one of the principal claims set forth for this new light was that it should be "entirely independent of having any

interest or connection in any manufacturing of articles for the business, stock-house, publishing-house, patents, stock companies, or any other journal," implying by this, antagonism to existing journals or methods of doing business. We could not but regret the embarking of our old friend in journalism, if his policy were to be such as to place him in opposition to those already laboring in the same field. But we are glad to see in his salutatory leader that he extends to his brethren in photographic literature the hand of fellowship, and states it as his purpose "to be courteous, obliging, friendly, and sociable, standing firm for the principles we advocate, the elevation of all things appertaining to art, especially to photography, and the welfare of the practical photographer."

If this last be the real purpose of our brother, viz., the working together with others for the benefit of photographers, and the elevation of our art, then we are with him, and bid him a cordial welcome to the field of photographic journalism, where there is need of so much to be done, when the rapid advances of photography are claiming the highest culture in literature and art. But if the policy of our contemporary is to be that shadowed forth in the circular, and exemplified somewhat in this first number, viz., that of antagonism to existing journals, and allowing it to be a medium for unkind thrusts and abusive innuendoes, then we must be excused from fellowship or fraternization with any such enterprise; for, if any choose to pursue such a course they must pursue it alone, as far as we are concerned.

We believe there is always room for well-directed effort in every profession, and any journalistic enterprise, in connection with photography, having for its object the promotion of harmony between members of the same calling, the advancement of the interests of the fraternity at large, and the elevation of our art, either in the East or in the West, will have our best wishes and receive our cordial co-operation.

A GOOD EXAMPLE.—We wish that every photographer were as well provided with photographic literature as is Mr. F. M.

Spencer, whose "Scattered Thoughts" may be found on another page. He says, "I have nine volumes of the Philadelphia Photographer, two of the Photographic World, and eight of Mosaics, and when I can't get out of them in any one year more than I can give, I propose to stop reading them and go fishing.

"The Mosaics for 1877 came to hand in due time. It is, perhaps, the most readable of the series of your welcome annual."

A DREADFULLY unsophisticated individual wants to know if a photograph he has which presents a woolly appearance, was made by the Lambert process?

Mr. E. Z. Webster says in a recent letter: "The promised Mosaics came to hand yesterday. I will say, the appearance typographically, etc., is excellent, and the contents, so far as a hasty examination would show, will prove a source of much pleasure, and a reservoir of innumerable hints of great value to the fraternity. I shall read carefully, digest mentally, and apply diligently, all that can be made useful in my calling."

"Nearly eleven thousand photographs of the graduating classes at Harvard, Yale, Dartmouth, etc., were seized on Monday while on their way from Montreal to Cambridge. 'The duties would amount to about \$3000.' It is to be regretted that so many of the collegians should apparently lend their countenances to smuggling."—Boston Christian Register.

We regret exceedingly that the good name of our art has been thus tarnished. We now see why it is that all of our large colleges' classes employ a foreign photographer instead of native talent.

A PRINTER from Massachusetts gives a very unfavorable report on the use of alum between toning and fixing to prevent blisters. He practiced it for some months about three years ago, and the results have proved most disastrous, the prints having all been attacked in a short time with the worst kind of yellow fever. Some of the prints we have seen are pitiable in the extreme. This printer has made no experiments to prove the alum at fault, but his work treated

the same in every respect except the alum, both before and after using it, shows no signs of fading.

On the subject of skylights a disciple of Daguerre, from Kankakee, remarked:

"I wrote you last spring in reference to the construction of a skylight. I proposed to digress from the usual mode of constructing skylights, sloping to the north, as it was not possible to have a side-light, and my building run north and south. I proposed to build a double light, sloping to the east and west. You considered the change admissible, so I built on that plan, and am well pleased with it, though I have not got it screened properly as yet; in fact, I do not know just how it should be screened, and I should be very thankful for any suggestions. I send you some photographs to-day made under it. Some of the prints are my best work, some of them I can improve on. I also send you some stereo views of scenery on Rock Creek, a small stream about ten miles from here.

"I should like to have been in Philadelphia when the Association met, but it was impossible, as I have been building up my new rooms this summer, and have not got through yet. I have been a constant reader of your valuable journal for about five years now, and would not know how to do without it. I buy it of our newsdealer, and look forward to its arrival with as much interest as to the visits of an old friend."

We thank the gentleman for his good opinion of our journal, and hope it may always be to him the same welcome friend. We are glad too that the style of light we encouraged him to build is satisfactory. In reference to screens we would suggest that he have a set of opaque curtains to pull down from the top, and if he is troubled with the sun, a set of white muslin curtains, or screens on frames made to slide off and on the light, would bring it under control. The best way, however, to avoid the sun with such a light is to work on the west side in the morning, and on the east in the afternoon. For all work, except large groups, but one side of the light should be used at a time:

SUNSHINE AND GOOD HUMOR .- Sunshine

to the photographer is as the ocean to the mariner; it was before he was, and upon it he wholly depends. But it is not only the sunshine without that contributes to his success, but a liberal lighting up with radiations from himself within the gallery, will sweeten his intercourse with customers as well as employés, and sitters will wear happier and more satisfactory expressions, because of the genial atmosphere, which pervades the place.

"Good Humor is the clear blue sky of the soul, on which every star of talent will shine more clearly, and the sun of genius encounter no vapors in his passage. 'Tis the most exquisite beauty of a fine face; a redeeming grace in a homely one. It is like the green in the landscape, harmonizing with every color, mellowing the glories of the bright, and softening the hue of the dark; like a flute in a full concert of instruments, a sound, not at first discovered by the ear, yet filling up the breaks in the concord with its deep melody."—Sanitarian.

TO PAY OR NOT TO PAY.—On this question Mr. James O. Merrill, of Rutland, Vt., speaks up as follows:

"MR. EDITOR: There is a good bit said about running one's business nowadays. How is it that there are men who will argue that it's wrong to require payment in advance when people sit for photographs? Isn't a bird in the hand worth two in the bush? Isn't a nimble sixpence worth more than a slow shilling? I say, with due respect to all, if there is any man following photography for a living, and don't wish his pay in advance, his prosperity is sealed, and he from necessity will bring up in the almshouse or in a lunatic asylum. People are not proverbial for paying directly after the work is finished; they will suit their pleasure, all things considered, and that is considerable. If a photographer is honest with his patrons, and makes good work, there will be no fault found if he should have rules to guide him in his business; they are as ready to pay in advance as he ought to be to receive it "

WE notice that our friend of the St. Louis Practical Photographer has a happy faculty for collecting his matter. On the second page of his cover we find that he has copied the fourth page of Chute's Centennial Photographic Diary, Rates of Postage, entire. His blank memorandum leaf is quite an original idea too. On page 8 is also an article which appeared in another journal last September. How much more there may be collected after the same style we have not taken time to investigate. But we would say, credit, my boy; credit.

#### OUR PICTURE.

In a fine landscape there is something very satisfying. It is Nature; grand, beautiful, and impressive; it subdues the critical disposition of man, and fills him with admiration for that creative power which he recognizes as so much above and beyond himself. Of this character is the subject of Our Picture. It is a scene in the Great Yosemite Valley, one of the most awe-inspiring spots in America, and celebrated for its towering rocks and magnificent waterfalls. The scene before us is looking across Mirror Lake, and gives a fine view of the wonderful Yosemite Falls The immense height of this fall is its distinguishing feature, it being the greatest of any in the world. It is 2600 feet from top to bottom, which is fifteen times as high as Niagara. It pours over the lofty crest, and falls in an unbroken stream about 1700 feet, when it strikes the projecting base of the great wall, and is lashed into a foaming cataract the remainder of its descent, scattering the spray for hundreds of feet on either side, and filling the air with clouds of vapor.

It is amid such scenes as this that one can cultivate a love for the grand and beautiful in nature, and should we not expect that an artist here would partake somewhat of the spirit of the place, and find full exercise for his genius, either with the pencil or the camera? Who that has seen the magnificent paintings by Bierstadt and Hill, will doubt this; or the grandly truthful photographs by Reilly, Watkins, and others?

The negatives for Our Picture were made for us by Mr. J. J. Reilly, Stockton, Cal., one of the best landscape photographers on the Pacific slope. Mr. Reilly's long residence in that section, his study of, and fa-

miliarity with, the fascinating scenery of this wonderful valley, have enabled him to select its best points, and, through his excellent work, his name has become as intimately associated with the Yosemite Valley, as are Bierstadt or Curtis with Niagara, and Kilburn with the White Mountains. The first consideration in photographing a view like this is to choose the best position, and the next to select the time of day when the light will be the most favorable. A study of Our Picture will show that both of these have been well attended to. One important point especially we would call attention to, and that is, that the section of rock containing the fall is kept in shadow, which gives much greater relief and prominence to that main feature. Had the face of this rock been in full light, the beauty of the picture would have been much impaired. Again, the intense light on the rock in the middle distance is covered by the foliage of the tree in front, which permits just enough of it to come through to give breadth and character to the picture. We believe our readers will unite with us in thanking Mr. Reilly for his efforts in securing for them this excellent example of landscape photography, and we trust that all interested in this department will be benefited by it.

The prints were made at the Printing Institute of Mr. Charles W. Hearn.

#### CORRESPONDENCE.

MARYSVILLE, OHIO, January 15th, 1877.

EDITOR OF PHOTOGRAPHER: Please find inclosed draft for \$5.00 for your very valuable journal for 1877. I have been a reader of the Photographer for two years, and I could not do without it, and I am especially pleased with this year's first number, so beautifully illustrated with the picture made by my well-known friend Walter C. North, to whom I am indebted for all I know of photography, for I took instructions of him; and just here let me say to my brother photographers who feel a lack of knowledge in photography, to call on Walter C. North, of Cleveland, Ohio, the author of the January number picture of the Photographer, and he will do you good. Mr. North has the faculty of imparting what he knows to his students in such a way as to be fully understood, and his charges are not unreasonable.

T. J. CHERRINGTON.

#### BRILLIANTS FROM MOSAICS.

SITTING by the sick-bed of an old-time friend, through the weary hours of night, my thoughts drift back to the past, and the sick man holds a place in them. He is an old photographer, once a prominent one, and in his day stood in the front rank, his name familiar to all the craft. I am afraid my old friend was a little too well satisfied with himself or his work, and that he held in too light an estimation the efforts of his neighbors. His work little by little grew old-fashioned, did not seem so stylish as some others. It did not take him long to lose the best of his patronage and to fall into the ways of an old fogy, of which species he is a strong type. What he knows he knows, and he holds the younger crop of photographers somewhat in contempt, considering himself head and shoulders above them in knowledge and ability. Seeing and feeling his mistake, leads me to note how common it is with very many to fall into the same error. Frequent instances may be seen of the old-school practitioner and the young progressive man almost side by side. One regards the other as an upstart, while he looks upon his neighbor as a stuffed bird in a glass case. Verily, every man has his day, and it is often the case that twenty-five to thirty years in the operating-room makes him a photographic fossil.-Brown.

A GREAT and almost universal fault in full-length photographs, in "my opinion, consists in bringing out or delineating the lower part of the picture too distinctly; especially is this the case with pictures of ladies taken in light drapery. The light from the skylight naturally falls strongest on the lower part of the dress, owing to its position, thereby giving that part the most prominence. Now, if the bottom of the picture were taken more in shadow, it would add very much to the beauty of effect, and consequent pleasure in studying

it. To illustrate this idea, take one of the class of pictures I am speaking of, and hold the hand across the bottom part, a little away from the picture, so as to shade and partly obscure that portion of it, and you will see how greatly it improves the appearance of the picture, and how much more pleasure there is in looking at it. Now, if that part were taken more in shadow, and a little obscured, the same effect would be produced.—J. S. HOVEY.

READ, read, read! I say. Subscribe for the Philadelphia Photographer, Mosaics, Bulletin, and all the photographic publications; store your minds with useful knowledge; avoid bad company of every kind; seek the society of respectable and refined ladies; keep out of bar and billiard-rooms; never mind if you do not know how to play all kinds of games at cards, or chuck-a-luck. Never mind if you can't drink or smoke or chew as much as that other fellow. To be perfect in all these will not help you here or hereafter. Strive to act and appear the gentleman, and the time will soon come when the title, nothing but a photographer, will never be applied to you, but in its stead will be heard the expression, HE IS A SPLENDID PHOTOGRAPHIC ARTIST AND AN ELEGANT GENTLEMAN.—I. B. WEBSTER.

In photography, as in every branch of industry, good tools and materials are valuable adjuncts in producing satisfactory results, and the practical workman cannot afford to be without them; but success depends upon the knowledge or skill of him who uses them. As they are made subject to the control of the master, so in that degree will the object produced be meritorious; therefore every intelligent workman will first study how to master the tools he has to do with. No rational man would attempt to build a house without having first matured a plan; then he would select the necessary tools and materials, and above all skilled workmen. But in neither the tools, materials, nor workmen does the highest merit attaching to the result depend, though the master cannot neglect them as adjuncts; neither does it attach to the result obtained, for that is only the expression of the art which lies within. In the conception

lies the glory. If the conception rises to the realms of poetry, if it appeals and responds to the noblest attributes of the soul, captivates the loftiest sense of beauty and harmony, if it is spiritualizing and refining, then it belongs to the realms of "fine art."—F. M. Spencer.

If the reader takes the trouble to examine a few bust portraits by painters of known ability, he will find that the background is always subordinate to the figure, and no accessories or light or shade is introduced that is not necessary to support it, or to bring into prominence some pleasing feature, or subdue one less so.

For an example, suppose we take as our sitter a pretty young lady, with face of almost faultless contour, place her three-quarters face or nearer profile, showing left side of face, light coming from the right. Contrast the illuminated side of face against dark side of ground, and the result is all that could be desired. Now let us take another subject with high cheek bones, unpleasing nose, or ugly mouth, let the position, background, and light be the same, and the result will certainly be unsatisfactory; it requires but little study to see why it is so.—W. H. Tipton.

WHY is it that some photographers, making only average work (so far as the manipulation of the plate is concerned), have a uniform steady business, have customers who come long distances to get their work, leaving perhaps the sumptuously furnished rooms of the larger cities for the plainer apartments of the country artist? Certainly it is not the rooms that attract, but simply because they are better served and feel more at home. The artist intent only on securing a likeness, avoids stage-struck attitudes and effects, taxes his conversational powers to draw out the expression of the soul within; failing in this, he resorts to stratagem, using any or all means to secure the coveted expression -E. T. WHITNEY.

WE want to see the time when poor pictures will be rejected by the public as unworthy of their attention. Now what must we do to accomplish this? We must study the principles of high art, and every time we make a picture we should endeavor to

portray to the best of our ability the amount of art knowledge we possess; and let me say here, possess all you can, study all the art journals you can get, and particularly study good pictures.—C. M. French.

WHEN a negative lacks intensity, use a thinner sample of varnish, sometimes so thin that the entire surface dries dead; but care must be taken in retouching and printing, to avoid scratching or marring the negative.

Sometimes one end or one side of a negative lacks intensity from some one of the various causes which produce such effects; in that case use a tolerably thin varnish, pour it upon the thin (least intense) end, near the corner of the negative; let it flow across to the next thinnest corner, and then to the third, and off at the intensest corner; in the meantime, by a turn of the wrist, the varnish has flowed over the entire plate, and when hard, the thin end of the negative will look flat or dead, and the other end will retain a gloss, thereby enhancing the printing qualities by equalizing the intensity of the negative.—E. Z. Webster.

I AM one of the firm believers that the day is not far distant when photography as a fine art will be acknowledged by all connoisieurs of art, that photographic portraiture is the highest standard of excellence for truthful, lifelike likenesses, and then let the awards be given at the World's Fair in Paris, and everywhere, to the highest standard of merit for plain, unadulterated photographs, as an incentive for plain work. The true artist-photographer will succeed in his profession in portrait work, that will be recognized as works of art, as well as he has in photographing the beautiful landscape, the intricate machinery, the finest tissues and delicate fibres of anatomy, giving to mankind an undisputed fac simile likeness, "perfect" without the aid or assistance of hand-painting in finishing or even in retouching the negative, unless in extreme cases, such as very dark freckles; for a perfect negative wants no retouching, and a perfect plain photograph should not require hand-painting in finishing .- C. D. MOSHER.



THE USE OF THE SPHYNX. -The Sphynx is intended to be a medium through which photographers may ask and answer questions. We believe there are very few who have no questions to ask or desire no information, and we want it understood that this column is open to all who wish to seek or impart information on any subject relating to the practice of photography. It may be made very useful if photographers will only avail themselves of it. It tells no tales. Correspondents may use their own names or a nom de plume, as they may choose. Send along your interrogatories and replies, and we will make this column a really instructive department. Here are a few questions; will some of our readers try to answer them?

I would like to ask you to ask your contributors to tell how to photograph oil paintings to the best advantage. I have seen but very few articles on copying oil paintings, and as I have seen many good copies, not executed here, however, and frequently having to copy them, I would like to know how to do so nicely.

Very respectfully,
GEORGE R. ELLIOTT.

SPHYNX: Will you please tell me how to vignette in an old-fashioned solar camera, one that has no vignette attachment? Also, how to take negatives of freekled persons for the solar camera?

DEAR SPHYNX: Which is the best lens for architectural, landscape, and outdoor group work? So many have their claims set forth that I don't know which to choose. I would rather have your opinion, or that of some practical photographer, than those of the dealers. Please answer. J. H.T.

[Will some photographer speak right out?—SPHYNX.]

What are the crystals (like little needles) which sometimes form in the bath, clinging to the sides and dipper? I have been troubled with them lately, and would like to know their cause and cure. They are quite new to me, and I would like to know if photographers generally are troubled with them?

H. H. C.

BRYAN, OHIO, January 9th, 1877.

DEAR SPHYNX: I presume that a communication from me has been overlooked. It was in regard to the Entrekin burnisher. I polish the bar every way I can think or hear of. I use the Slee's prepared mounts, rubbing the picture over with the usual soap and alcohol mixture, heating so that moisture touched on the plate sizzes, pressure sufficient to gloss, when lo, every once in awhile those scratches put in their unwelcome scores across the picture. I wash face down so that no grit from the water can settle on them; besides, the water is clear and apparently free from grittiness. If you can give me any light, please do so.

W. H. L.

Answer.

The lubricating solution should be made with alcohol of full strength, and do not use the burnisher so hot. The little scratches are probably caused by little particles of the enamel breaking from the edges of the mount, either from the alcohol of the lubricator being diluted with water, or from the extreme heat of the burnisher.

The evil may be remedied also by cutting the print larger, so that there will be less margin of the mount to come in contact with the burnisher.

SPHYNX.

#### The Analogy of Sound and Light.

THE Saturday evening free lecture in connection with the Loan Collection of Scientific Apparatus at South Kensington was given by Professor Barrett, M.R.I.A., of the Royal College of Science, Dublin, on "Some Experiments Illustrating the Analogy of Light and Sound." Major Festing, R.E., took the chair.

The Professor commenced by referring to some of the well-known facts about light and sound, such as that sound waves travel through air, while light waves travel through "luminiferous ether," etc. Among many illustrations of the rate at which each travels, he gave this as a very intelligible one: If a cannon were fired in Löndon the sound would take about eight minutes to travel to Birmingham, a little over one hundred miles, while in the same time the light from the flash would have travelled to the sun, a distance of over ninety millions of miles. But though they so differ in the rate of progress, both light and sound show many phenomena in common.

In the experiments made during the evening the sensitive flame was used as a detector of sound. This delicate acoustic reagent, familiar to London audiences through Professor Tyndall's lectures, was first, we believe, discovered in 1866 by Professor Barrett, though he modestly did not allude to the fact. Indeed, most of the experiments shown during the evening formed the subject of a paper read by him before the Royal Dublin Society, in January, 1868, and the discovery of the ratios referred to at the end of the lecture was announced in the Quarterly Journal of Science for 1870. performance of the experiments, however, was entirely new to a London audience.

The analysis of the phenomena of light and sound were illustrated in the following order: 1. Both light and sound get feebler as they leave their source of origin. In the case of sound this was shown with a loudticking watch and a sensitive flame. 2. In reflection the angle of incidence is the same as the angle of reflection. In the case of sound, this was shown with the sound of a whistle sent along a tube, and reflecting along another placed at an angle to it from a reflector placed at the end where they approached. The distance to which a feeble sound might be reflected perceptibly from a concave mirror was shown with mirrors over thirty feet apart. 3. With refraction, in the case of light, familiar convex lenses were used, and in the case of sound, analogous but less familiar lenses of gas of a different density from air were used. A collodion balloon, filled with carbonic acid gas, served as a double convex lens, and its action was manifested by the concentration of sound from the ticking watch on to the sensitive flame. 4. Both light and sound suffer absorption in passing through non-homogeneous media. Professor Tyndall's apparatus, showing the "echoing back" of sound in passing through successive alternating layers of gas of different densities, is now well known, and every one is familiar with the fact that though light may traverse a vessel of clear water, it can no longer travel when it is filled with bubbles of transparent air. 5. There is an analogy between the sympathy among the same notes of a gamut and the sympathy among individual colors in the spectrum. An incandescent body that produces a particular bright band in the rear of the spectrum, will, when in a gaseous state, absorb light, and cause a dark band in exactly the same part of the scale. Tuning-forks, wires, or columns of air in jars are responsive to vibrations produced by others exactly in unison, but only to those. This was shown in various ways in a very clear manner. 6. An analogy, which Professor Barrett called a more fanciful one, was spoken of. All the complex music of an orchestra is the result of a few simple notes variously combined. So all the tints of a picture are the results of a few simple colors variously combined. The musical scale sorts the complex notes in one case, the spectrum sorts the complex colors in the other. Prof. Barrett, taking Prof. Listing's determination of wave-lengths, has made a most interesting comparison. The wave-lengths of the notes of the gamut he expresses not in absolute but in relative measurement. Thus C is taken as 100, and all the other notes have their wave-lengths expressed in percentages. Similarly, red is taken at 100, and the wave-lengths of other colors are expressed in percentages. This interesting result comes out in comparing the two columns. O and orange are each 89; E and yellow, 80; F and green, 75; G and the average of the blues, 67; A and violet, 60; B and ultra-violet, 53; C and the obscure rays (black), 54. Further, the comparison of harmonies comes out in an interesting manner. Low C and upper C sound well together, so red and black go well together. Red and green, and C and F, harmonize well; but red and orange no lady would wear, and C and O make a com-

bination by no means pleasant. Red and blue, or C and G, also go well together. 7. The concluding part of the lecture was devoted to an illustration of the figures described by vibrating bodies. Several apparatus for this purpose were briefly referred to, but especial attention was given to an apparatus of great ingenuity devised by Mr. S. F. Pichler. It is exhibited in the west gallery, No. 7596. Professor Barrett showed it with an electric light and a reflection on The principle of it may be thus to a screen described: Two metallic vibrators, each with a small speculum, are fixed at right angles to each other, and sounds are produced by a current of air acting on one or both of them at pleasure. The perpendicular vibrator is tuned to a given note; the horizontal vibrator is fitted with a mechanical arrangement whereby its pitch can be graduated to any degree of nicety within the compass of two octaves. An apparatus is also provided whereby a pencil of light is concentrated upon the speculum of the perpendicular vibrator, whence it is reflected to the speculum of the horizontal vibrator. For lecture purposes artificial light is used, which is further reflected and magnified upon a screen. When musical sounds are produced by the vibrators, various luminous geometrical figures are formed on the horizontal speculum and reflected on the screen by the single or joint action of the vibrators described by the pencil of light; and the

form and motion of such figures demonstrate the exact relations to each other of the musical notes produced. Sounds which harmonize to the ear produce regular figures to the eye, as, for example, segments of the circle, ellipses, ovals, circles, or straight lines; and if the amplitude of each vibrator be equal, these luminous figures will hover, on the speculum or screen, with an apparent steadiness like that of the heavenly bodies hovering in the sky. If the sounds do not harmonize, the figures are confused, unsteady, and complicated, presenting an appearance as if the wave-lines were contending with each other. The mathematical relations of musical notes are also demonstrated, regular simple forms being produced by combination of those notes which result from vibrations bearing a definite numerical ratio to each other, while irregular and unsteady figures are caused by notes which have no such ratios. The pattern made on the screen by a discord is very bewildering to the eye.

Professor Barrett, in concluding, said: After seeing how musical notes may be translated into moving lines of light, the words put by our poet into the mouth of Lorenzo have additional interest:

"There's not the smallest orb which thou behold'st But in his motion like an angel sings."

Major Festing conveyed the thanks of the audience to Professor Barrett. — London Times.

## Editor's Table.

CHRISTMAS COURTESIES.—The following communication speaks for itself:

San Francisco, January 4th, 1877.

E. L. Wilson, Esq., Philadelphia, Pa.

MY DEAR SIR: Inclosed please find a photograph of a silver pitcher presented to Mr. Bradley, and a silver fruit dish presented to Mr. Rulofson, by their employés, on Christmas Day. Both gentlemen responded in feeling words to the presentation. Happy New Year.

Yours truly, GEORGE B. RIEMAN.

The cabinet photograph accompanying the above is a beautiful picture of the pieces of silver.

Such tokens between employers and employes tell more of the good feeling that exists than could be written in a volume.

THE GREAT CENTRAL —We learn from a notice before us, that Mr. Gayton A. Douglas, the well-known right-hand man of Mr. Charles W. Stevens, of the "Great Central Photographic Warehouse," Chicago, has been admitted to an interest in the business. Messrs. Stevens and Douglas will make a strong team, and we wish them success in their new relation.

WIRE SCREEN BACKGROUNDS. - We have re-

ceived from Messrs. Buchtel & Stolte, Portland, Oregon, two certificates, by different parties, showing that Mr. Buchtel used the wire screen in 1869, and secured a patent in that or the year following. This information may be of service to those interested in the priority of this invention.

YANKEE DOODLE.—We wish to say here that the types, by some misapprehension, have been making us charge two dollars for Ryder's chromo of Yankee Doodle, when it should be but one dollar and a half. This is a fine picture, and we know of nothing that can excite more patriotism for the money. Discount to photographers. See advertisement.

THE SOUTHERN PHOTOGRAPHIC STOCK DEPOT, ATLANTA, GA .- Mr. W. T. Waters, agent of the above house, has sent us his Catalogue and Price-List, alphabetically arranged, which must be of good service to photographers in that section. He also includes a list of our photographic publications, which he introduces with the following well-timed remarks, for which he has our thanks . "What follows is a catalogue of the best photographic publications, sent to remind all live photographers of the fact that good practical information is as essential to them as good lenses and pure chemicals. There are some 'artists' who 'get along' without any of these, but they do not progress, neither do they succeed. Do not be of their number. There is too much going on in photography in these 'quick acting' times to enable any photographer to afford to do without reading and being posted. In anything you undertake you should take every precaution to be as bright as your neighbor, or he will get ahead. Keep alongside, any way."

THE firm of D. H. Hogg & Co., photographic stockdealers, Toronto, Canada, has been dissolved, and the business is to be conducted by Messrs. C. G. Cobban and D. Owen, under the name and style of C. G. Cobban & Co. May success attend the new partnership.

Photo-Engraving.—We have received from the Photo-Engraving Company, 67 Park Place, New York, a copy of their Art Album, containing twelve beautiful photo-engravings, of about 8x10 size, reproduced from steel engravings in the London Art Journal. The Album is sold for one dollar, and the pictures are excellent studies. Another of their quarterly circulars contains also some fine examples of their work.

PICTURES RECEIVED.—From Mr. S. R. Stoddard, Glen's Falls, N. Y., a number of beauti-

ful stereos of the Adirondack region. Stoddard is at home among the magnificent scenery there, and the success of his efforts is the best evidence of his skill in choosing the very attractive subjects which he presents in his work. Mr. H. B. Hillyer, Austin, Texas, sends us a photograph of the front of his new gallery. We are glad to see this evidence of his prosperity. Cards, cabinets, and an 8 x 10 from Mr. J. W Husher, Greencastle, Ind. A cabinet with three pictures of the same child, is a very happy effort. The serious, thoughtful expression of the first, brightens into one of animated interest in the second, and breaks into a real baby laugh in the third. Such success with babies will soon make Mr. Husher famous. Mr. John F. Singhi, Rockland, Me., says he sent us samples of his work about a year ago, but as we made no mention of it, he concluded they were not worth noticing, and felt discouraged. We are sorry for this, but think the pictures could not have been received, as we never intend to show any partiality, but notice all pictures that come to From the specimen he has sent us now we think he is making good progress. With a little more care in arranging the hands this would have been a very pretty little picture. The lighting and chemical effects are excellent.

Mr. Adolph Braun, Dornach, France, has published his excellent carbon process, as worked and perfected by him, in a neat pamphlet, which has been sent us by his New York agent, Mr. Adolph Ott. We hope to make some extracts, that our readers who wish may have the benefit of this great carbon worker's experience.

ART ALBUM.—We have made arrangements with the Photo-Engraving Company of New York, for the sale of their Art Album, containing twelve fine reproductions from steel engravings. These are capital art studies for photographers. See advertisement.

Messes. Long & Smith, Quincy, Illinois, give us a good illustration of their enterprise and prosperity in the fine illustrated catalogue and price list which they have just issued. It is a pamphlet of ninety-six pages, printed on heavy tinted paper, and presents a very neat appearance. It seems to enumerate everything that can possibly be required in photography, including a list of photographic publications. Photographers in the Northwest will find it useful in ordering goods, as it names every article they may want, and gives the lowest market prices.

THE METRIC SYSTEM OF WEIGHTS AND MEAS-URES.—There has been recently incorporated in Boston an association of teachers and others interested in the introduction of the metric weights and measures, under the name of the American Metric Bureau. Article 2 of its constitution reads as follows:

"The object of this bureau shall be to disseminate information concerning the metric system, to urge its early adoption, and to bring about actual introductions wherever practicable. To this end it will secure the delivery of addresses; publish articles; circulate books, pamphlets, and charts; distribute scales and measures; introduce the practical teaching of the system in schools; and in all proper ways, as far as the means at its disposal will allow, the bureau will urge the matter upon the attention of the American people till they shall join the rest of the world in the exclusive use of the International Decimal Weights and Measures."

This bureau already includes among its members many of our prominent educators, and its numbers are rapidly increasing. An office has been opened at 13 Tremont Place, Boston, and as soon as suitable arrangements can be made, branch offices are to be opened in New York, Philadelphia, Chicago, and other central localities, where all persons interested are invited to call or to write freely in regard to any matter pertaining to the work of the bureau.

The Jury at Photographic Hall.—Our esteemed friend, Prof. George F. Barker, of the University of Pennsylvania, in noticing our remarks, that there was no practical photographer on the International Jury but Dr. Vogel, says, in a personal letter to us, "My friend, Prof. Henry Draper, was on it, and he is altogether the best astronomical photographer in this country, as his moon and her spectra abundantly prove. He had charge of all the photographic preparation for the transit of Venus expedition."

We are quite well aware of the fact that Prof. Draper was one of the jury appointed by the Centennial Commission to pass upon photography; and while we have already frequently, and do again, gladly credit Prof. Draper with his triumphs in astronomical photography, and while we consider him a most estimable and competent gentleman to be a member of the photographic jury, nevertheless we lament the fact that, as we said before, no practical photographer had been appointed on that jury, and by practical we mean a photographer who, day by day, gains his livelihood by the practice of general photography, portraiture especially. Such a one would certainly be more in sympathy with his coworkers, and more competent to judge of the

difficulties which are overcome in the prosecution of their work, than either Dr. Vogel or Prof. Draper, and men of their stamp of excellence, and we are quite sure that either of them will agree that this is so.

We still think it was a great oversight that no working photographer was appointed on that jury; and after the effort that we made to first secure a Photographic Hall, and then the money to pay for it in a great measure, and then by correspondence all over the world to fill it with exhibits, that as carefully a chosen jury as possible was not appointed to pass upon the work.

DR. ADOLPHE OTT, 22 First Avenue, New York, sends us a circular, which announces his intention to give a series of ten lectures on photographic chemistry in the Cooper Institute, or in another convenient hall, New York, with special regard to the newest methods of applied photography, including the dry-plate process, the pigment or carbon printing process, the Lichtdruck and heliographic process, photo-lithography, photo-engraving, etc., and, when possible, to be accompanied by experiments introduced to explain the methods used. In closing his circular, Dr. Ott says: "I have heard that a great number of photographers are of the opinion that the carbon process could not be used without a license from Mr. Lambert; this is an error and a great pretension, for the following reasons: First, Mr. Swan's patent, No. 61,368, is invalid, because his process has already been published three years before in the several photographic journals. Second, the principles of Mr. Swan's invention are not his own, but belong to Mr. Davies, of Edinburgh, who, one year before Swan's application, gave a lecture in the Edinburgh Photographic Society on carbon printing. Third, a chromotype process, that is to say, a double transport process, with glass, mentioned by Mr. Lambert, was published in pamphlet form in 1868 by Mr. Montagna in Italy, also in the Philadelphia Photographer of that year, page 192. The American patent, ceded by Mr. Johnston, of London, to Mr. Lambert, was given one year later. Fourth, the Lambertype is simply the making of an enlargement from a carbon positive with lens and camera, just as used several years ago in London, and is described by Dr. Vogel in his work on the carbon process, page 43.2

We presume that further facts in this interesting matter may be obtained by applying to Dr. Oct. We sincerely wish him success in his enterprise, and believe him to be thoroughly competent to teach what he undertakes.



The publishers have a great many good things in anticipation for the year 1877, which they think will render their magazine more beautiful and more useful than ever before; and while they maintain that the beautiful example of photography, which accompanies each issue, is alone worth the subscription price, still more and more effort will be made to make the reading matter everything that it ought to be. Our correspondents from all the leading centres abroad will keep our readers posted on all matters of interest in their several sections, while our unrivalled staff at home will look diligently after your interests here. To make the Philadelphia Photographer the best practical helper which can possibly be obtained, is the aim and earnest desire of its publishers.

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#### SECOND

# Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARV-INGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

1. 2120—The Main Building "through the Trees."
2. 1865—Main Building, north side.
3. 2027—Main Building, transept towards northeast.
4. 2028—South Gallery of the Transept.
5. 1921—Statue, "Out in the Rain."
6. 2307—Norwegian Peasants.
7. 2387—The Clockmaker, Swedish section.
8. 2349—The Dying Elk.
9. 2362—Swedish Peasants.
10. 2041—Swedish Ornamental Pottery.
11. 2218—Porcelain Fireplace and Candelabra, Swedish section. section.

12. 2160- Victoria Court—Austrian section, Main Bldg.
13. 2214—Shell-work from the Bahama Islands.
14. 2215—Curiosities from the Gold Coast.
15. 2045—Doulton Pottery.
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.
19. 2075—Barnard's Rahise and Cradles. section. 19. 2279—Barnard's Babies and Cradles. 20. 2301—Brown, Westhead, Moore & Co.'s exhibit of Terra-cotta. Terra-cotta.

21. 2087—French section, Main Building.
22. 2282—French Bronzes.
23. 2005—French Religious Figures.
24. 2234—The Birth of Christ.
25. 1487—Carved Figures, Belgian section.
26. 2104—The Brazilian Court.
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28. 2188—Brazilian Court.
29. 2097—Facade, Netherlands section.
30. 2283—Netherlands Court.
31. 2283—Screen and Bronzes, Netherlands section.
32. 2365—Carved Models of Swiss Cottages.
32. 2366—Ornamental Swiss Carvings.
34. 2367—Swiss Carvings, Cattle Piece.
35. 2090—Mexican section, Main Building.
36. 2096—Mexican Silver Cake. Valued at \$72,000.
37. 1887—The Mexican Court.
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39. 1827—German Bronzes.
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42. 2010—Bohemian Glassware, Austrian section.
43. 2011—Glassware, Austrian section.
44. 2047—Glassware, Austrian section.
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52. 2226—Carved Sideboard, Spanish section.
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54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel Saddles.
56. 2187—Pottery of the Danish section, Main Building.
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58. 2017—Japanese Mirror and Bronzes.
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60. 2175—Porcelain Ware, Japanese court.
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86. 2098—Mott's Fountain.
87. 2001—United States Chemical Department.
89. 2003—Wenck & Co.'s Perfumery Stand.
90. 2100—Crystal Fountain.
91. 2156—Hertz & Co.'s Furniture exhibit.
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94. 2317—Origin of our Flag.
94. 2317—Origin of our Flag.
95. 2048—American Glassware.
96. 2252—American Gas Fixtures.
97. 2265—American Picture Frames and Statuary.
98. Statuary—your choice of subject.

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98. Statuary—your choice of subject. 99. Statuary—your choice of subject. 100. 2064—View from the Reservoir.

49. 2127-Russian section, Main Building.

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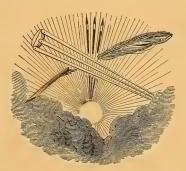
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THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

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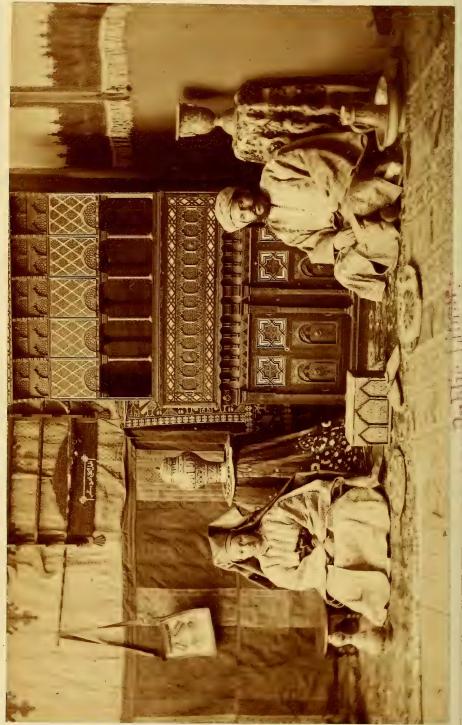
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# Philadelphia Photographer.

Vol. XIV.

#### MARCH, 1877.

No. 159.

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#### THE CARBON PROCESS.

WE think enough has been said by us on his subject to convince all of our readers as to how we stand in the matter, which is substantially as follows: That the carbon process always did, and does, produce excellent results; that it has advantages over the silver process for some classes of work; that it is possible for men, women, and children to make carbon prints; but there are also drawbacks connected with it, which, in our opinion, are exceedingly serious, and which tend to make it an unprofitable process for the ordinary photographer to employ. To make preparation for its practical use considerable expense is necessary, even to work it on a small scale, and its manipulations are so entirely different from any other photographic process, that one not at all skilled in ordinary photographic printing can manipulate carbon better than an old silver printer. Moreover, gelatin, which is the base of carbon tissue, is of such an obstreperous nature as to be subject to the least climatic change, and thence springs the principal difficulties which are met by the carbon worker. We deemed it our duty to acquaint our readers of these facts that they might not part with their money, and then, as they frequently have done before, accuse us of not giving them full information on the subject. It may appear to some that we were a little tardy in doing this, but we could not get possession of the papers, which we wished to publish sooner; and surely any one who has read our pages carefully for the last few years, must have known and felt that, if all the claims which have been made in a year or two by various parties for the carbon process were true, that we should very soon acquaint them of the fact; and as long as we remained silent on the subject, if they really wished information, they could certainly have asked it, or, as some have wisely done, waited until it could be given. So we do not feel that any one who may be disappointed with his purchase can lay the sin at our door. On another page we give place to some correspondence from old carbon workers, whose opinion and practice are the same as our own. Counterbalancing this, we publish a letter from Mr. Frank Rowell, of Boston, a man whose opinion has great weight with us, and who, we believe, is the only man who has from the birth of the carbon process to the present time worked it continuously in this country, and made it of any practical advantage.

The carbon process is about ten years old. In our visit to Europe, in 1873, we had the pleasure of examining the studios of the leading photographers of London, Paris, Brussels, Berlin, Vienna, most of the large Italian cities, several in Switzerland, and other

countries, and we found but one ordinary portrait photographer who used practically the carbon process, and that was in the city of Brussels; and only two, or at the most three establishments, where the carbon process was worked to any extent at all, and this, after seven or eight years had elapsed since the process was given to the public. We believe that the only way in which it can be worked to advantage, is by such large establishments as that of Mr. Braun, of Dornach, and of Messrs. Spencer, Sawyer, Bird & Co., at Ealing Dean, London, both of whose establishments we had the pleasure of examining thoroughly. However, since many of our subscribers have purchased the carbon process recently, and are anxious for information thereon, we shall, without being considered as an advocate of the process, proceed from time to time to give such information as will be of benefit to them in that direction, from practical workers, together with examples of work.

We begin this month, therefore, the publication of a series of articles by Mr. Adolph Braun, of Dornach, and we have invited Mr. Rowell and other carbon workers to aid us in the matter. Mr. C. Gentile, of Chicago, has expressed his willingness to make for us an illustration for our magazine, having accepted our challenge to the workers of the carbon process to do so. With this disposition to oblige all-classes of our subscribers, which disposition we have always tried to show, we trust we shall have no more the cry of "personal pique" and "animus," and that such action will please the majority of our subscribers more entirely than to give them scurrilous personalities, in which direction we are not gifted.

#### GERMAN CORRESPONDENCE.\*

Centennial Awards—Carbon Process—Dull Days in Europe—The Importance of the Collotype Printing Process—A New Photographic Society—King Cotton in Photography.

BERLIN, December 30th, 1876.

THE Centennial year is over, and I notice with satisfaction that at the closing of the same many unsatisfied hopes cherished by several parties about the Centennial Exhibition are finally realized. At other world exhibitions there has been only one distribution of medals, but the Centennial Commission has preferred to issue a first, second, and third instalment, and thereby not only all those medals ordered by the jury have been distributed, but several others of which the jury knows nothing. However, I say amen to the action, and congratulate the next world exhibition, at which I do not expect to act as juror.

I see in your last number, that the carbon process is with you the main topic which agitates the photographers. I am accustomed to see America in all things ahead, and am astonished now to notice that there a thing is introduced as new which has been practiced in Europe for at least four years, and that without interfering with any licenses.

How can a process be patented in America which has been already known for a long time, and that I have described in a Handbook of Carbon Process in its third edition? But I will prejudice nobody. Patent laws are intricate, and give here as well as there enough points to think about The weather is creating more vexation than this for the photographers in this country. We have never seen a winter month as dark and gloomy as this December. For two days only the sun was visible, and that for a short time, and in a season when business was good, and there were plenty of orders for Christmas. The pictures had to be made imperatively. Therefore it happened that for taking carte de visites, persons sat only say two minutes, using, however, the best chemicals and the strongest objectives. Such pictures, of course, are not fine; we can see by the more or less faint features, and the underexposed shades, that they are winter pictures. There have been many artificial lights proposed, but till now with no very remarkable success; none have been adopted in practice. From theory to practice, anyhow, is a long step.

The preceding year has brought us many good and new things, but in photography it can be noticed that we still step ahead on the old even road. We still take our negatives by the wet-plate process, and we still copy

<sup>\*</sup> Received too late for last month

by the silver-printing process. In certain cases we make use of the carbon process, especially for large pictures or transparencies, or reproductions of negatives. However, that is nothing new, being known for In dry-plate photography years already. there has been made an important progress; but till now dry plates have been of importance only in the hands of amateurs. Practical photographers have so far made very little use of them. It is different with the collotype printing process, which is increasing more and more in Germany. Its practice requires nothing else but carefulness and skill in printing, and, of course, talent for fine art. It is cheering to notice what an immense use there has been made in Germany of the colletype printing process. As evidence I copy here what our first-class periodical of fine arts, the Kunstchronik, says about it.

"What we mentioned previously as being expected has been realized in a year; the photographical press printing, or, as a keen neologist calls the thing, the 'Lichtdruck' (colletype printing process), has overcome its probation time, got a firm footing, and has contributed considerable additions to the literary artistic Christmas gifts. This process has two important advantages over the photographic copying method, viz., the durability of the picture and the independence of sunlight, or, what means the same, the easy, convenient, and proportionally fast production of copies. Thus the future, rich in technics, will interpolate itself between photography and lithography, and offer more than sufficient compensation for the considerable difficulties met with in working photolithography. On account of being able to apply, like the latter, any thick printing paper, we save pasting up the copy on an under sheet, and avoid the disagreeable oily lustre common to photographic copies. Singular enough, after a long time, they determined at last to let this advantage pass as an advantage, and at first they thought it was necessary to keep up the appearance of the old method by an imitation of the external appearance of photography, covering with lac and pasting it up, perhaps with the idea that otherwise the product would lose its worth in the eyes of the purchaser.

"The photographic press print has been in three ways the speculation of bookdealers. It offered the possibility of the production of the most deceptive fac similes of hand drawings, as well as of copperplate prints and engravings; further the productions of plastic and architecture, at least in a degree to be reached by photography, which can be done without any intermediate process. The reproduction of old oil paintings and frescoes is yet, so far as we know, untried. But in a short time there will be put before the readers of the Zeitschrift such a copy of the Lichtdruck, and they may then judge for themselves how far the process has succeeded in representing the character of the original painting."

After this a most favorable criticism of the following Lichtdruck works is given: Wandermappe, Artist's Album, printed by Römmler & Jonas, Dresden; Holbein's Zeichnungen (drawings), printed by Frisch, at Berlin; Albrecht Dürer's sämmtliche Kupferstiche (copperplate prints), printed by Obernetter, at Munich, and the Klassiker der Malerei (classics of painting), printed by Rommel, at Stuttgart.

Besides the above works there are other great publications existing which are not mentioned by the Kunstchronik, viz., Gallery of Modern Masters of Art, published by Jacobi & Prager, at Berlin; also, Treasures of the Bavarian National Museum, published by Obernetter; the principal pieces of the Munich Art Industry Exhibition, published by the same. It is certain that this process will have a brisk development. It must particularly be mentioned that this process is only of importance when a large number of copies is wanted. The steam-press has recently been applied for Lichtdruck, and with the same it is possible to print 800 copies daily of one plate.

The productions of the steam-press are really not as fine as those of the hand press; therefore, pictures which require technical skill, are still printed by hand-press. But the pictures produced in this manner, especially when afterwards coated with lac, are so fine that they cannot be distinguished from silver print. The photographic views of cities and landscapes are at present very often multiplied by Lichtdruck, and

sold as photographs; they have an advantage over the latter on account of their durability. For this process inverted negatives are required for the production of pictures in the proper position. Jacobi, of this city, is preparing them by copying common negatives, and printing the film from the back, but the majority of the other printers prepare inverted negatives by means of the dusting process, which, indeed, after some practice, shows quite excellent results. Lichtdruck, therefore, has already passed the stadium of trial; it is a welldeveloped and vital technic. The number of collotype printing establishments existing at present in Germany is running up to at least twenty, and more are being estab-

It is evident that the colletype process will very soon find some further and new applications. Geographic maps will be reproduced by means of the colletype process. Chromolithos will be made by means of this process, and here opens a field which is almost too immense. In comparison with the great productions of the colletype process I consider the heliogravures, by Goupil, at Paris, though the process may be interesting enough, as a dead-born child. stores of fine arts at Berlin, these heliogravures are exhibited beside the colletype copies. The latter look like real photographs, the first more like lithographs; the half tones are granular. Besides this, there are more difficulties in the production of a heliogravure plate than of a plate for the colletype process, which can be prepared very readily. And this is the reason that the prices of heliogravures are three times higher than those of colletype pictures. Also, the new Vidal process of the photochromy cannot exist long beside the collotype process. A practical chromo-lithographer, making use of the colletype process, can deliver a great deal finer picture than the photochromo by Vidal.

In the Centennial year Germany has increased its number of photographic societies by a new one; it is the Society for Promoting Photography and Similar Arts, at Cologne on the Rhine. Cologne is a rich and renowned city, and we may hope that it will become the central point for promot-

ing photography, as Dusseldorf, in its neighborhood, became the central point for promoting fine arts.

For years we have been using collodion in photography; the preparation of a good cotton for photographic use is no longer a secret in the hands of a few only, but is a very well-known subject, and still it is wonderful that to-day we are in obscurity about the composition of photographic cotton. The latest investigations have thrown no light on the matter, only more confusion. Abel says that photographic cotton contains two atoms of nitrogen, and gun-cotton three. This corresponds almost with Hadow's investigations. Champion and Pellet, on the contrary, assert that Russian cotton, the excellent qualities of which are known, contains as much nitrogen as gun-cotton. It is very desirable that these investigations should be carefully repeated, and then perhaps it will be possible to give more explanation in regard to the chemical qualities of the dry-plate collodion. After the investigations up to this time it is certain that in dry-plate cotton an unknown substance plays an important part besides the pyroxy-

> Yours truly, H. Vogel.

#### OUR PICTURE.

In the southwestern corner of the horticultural grounds of the late Centennial Exhibition, was an unpretentious little building dubbed the "Moorish Villa," which was brought bodily all the way from the extreme northwestern corner of Africa, namely, from the city of Morocco. We saw this same structure at the Vienna Exhibition in 1873. Perhaps on account of its unimposing exterior, few visitors to our great world's fair ever thought to enter this little building, but had they done so, they would have been treated to a display which was very different from anything else to be seen, for the interior was constructed after the most exquisite Moorish designs.

It was divided into several apartments, thus giving the beholder an opportunity to understand in some degree, though a

very small one, the fascinating splendor of buildings which still remain in Spain, the handiwork of the ancient Moors. We may well understand how elegant and how gorgeous this is by reference to the description of the palace of the Alhambra, in Granada, Spain. The rapt poet in describing this says: "It is a palace of transparent crystal; those who look at it imagine it to be the ocean. My pillars were brought from Eden. My garden is the garden of Paradise, of human jewels are my walls, and my ceilings are dyed with the hues of the wings of angels. I was paved with petrified flowers, and those who see me laugh and sing." This was most literally so of the little villa to which we have alluded, and one could well spend an hour or two in that little inclosure examining its beauties. There has been a great deal of argument in regard to the origin of these air fabrics and as to whence came the design.

We are told by the traditions of the Moors that it happened thus: The great architect, Ibn Aser, had roofed out the burning blue sky and the lightning heat with a plain bell-dome after the manner of the Romans, but his soul was not satisfied, and he sat cross-legged on his prayer-carpet between the palm pillars looking up and praying to Allah for more light of divine wisdom. At that moment came dancing in, with shell-shaped castanets, calabash guitars, Moorish cymbals, and the nose flutes of Barbary, a band of negro and Christian slaves waiting for their fair mistress Nourmahal, the light of the world. Wanton in their joy, they flung about their arms, which mingled together, black and white, looking like the night just when it is changing into day, and they began to pelt each other with handfuls of snow, which latter they had, in huge matted baskets, brought that morning on mules from the bosom of the cliffs of the Sierra Nevada, and the snow on the black faces fell as swans' down, but on the fair faces it was as ice dew on the early roses. When tired of this amusement, they began to toss hundreds of snowballs up at the dome-roof, seeing which could make most snow adhere to the hollow globe, and when one obtained

the victory, she laughed with a laugh that was as a peal of silver bells; then came the loud clap of the black eunuch's hands, the signal that Nourmahal needed their services with perfumes and syrups in the bath-room, and they all fled like a herd of fawns when a wolf breaks upon the oleander bushes. Then the architect, looking up smilingly at the clotted snow hung in bosses and tufts, cells and pendants, fell on his knees and thanked Allah for so graciously answering his prayer. Thus the great architect obtained his original designs for the exquisite Moorish buildings which he erected, and thus likewise were obtained the designs of the little villa of which we have tried to give you an idea.

Our Picture this month represents one of the apartments of this building. We see the natives here seated on their prayermats, surrounded by their articles of apparel and of worship, together with such furniture as they are in the habit of using. They never use chairs, but always sit cross-legged as shown. Our artist has tried to arrange their tinsel draperies and their gaudy contraptions to make a picture; but he doubtless found it a difficult job to group a number of subjects, each one of which would itself make a beautiful picture. We observe that he has made efforts after both angular and triangular composition. The beautiful piece of furniture which is shown in the picture, is a genuine article of Moorish manufacture, and after the description we have given of Moorish architecture, it will be recognized at once as a fine example. It was composed of thousands of small pieces of ebony and ivory, no doubt in representation of the mingling together of the black and white arms of the dancing slaves of which we have just read.

Surrounding the other objects were many articles of drapery to which photography by no means does justice. There were many of them interwoven with gold and silver, and the mats and the rugs and the pottery were all of the most gorgeous colors and exquisite patterns. We should certainly feel greatly indebted to the subjects for consenting to sit in our picture; it was only done after much persuasion, since the conscience of

the Moor will never allow him to have his picture taken. One old fellow, an attendant at the villa, was decidedly the most picturesque Oriental subject among the many who were attendant upon the Exhibition. So mortally was he afraid of having his picture made of any sort, that he would run whenever a camera was pointed at him. He consented, however, to assist at the arranging of this picture, provided that no effort whatever should be made to make a picture of him. His wishes were conscientiously adhered to. Both he and the male who sits in the picture, were genuine Moors, full of energy and enterprise and business tact, as much so as the men of any nationality, and they brought our memory back to the time when they held full sway in the Spanish peninsula, until driven by the Cid almost to extermination, to the little portion of the world which they now occupy, where, after his death,

"The Cid rode through the horseshoe gate, Omegashaped it stood,

A symbol of the moon that waned before the Christian rood;

He was all sheathed in golden mail, his cloak was white as shroud;

His visor down, his sword unsheathed; corpse, still he rode, and proud;

And over all the spears and blades, east, west, and south, and north,

The Cid's proud flag like sunset spread and flaming fiercely forth.

The rice fields, where the tufted stalls grew green round tepid pools,

When trodden red by flying crowds of unbelieving fools;

The bright canals, that girt the town as with a silver net,

Were scarlet with the slain Moors' blood—the melons purple wet;

At every water-wheel and mill a dying man was found-

His cloven head leant back against the red jar's knotted round;

The mulberry trees were strung with Moors, as carobtwigs with fruit;

The dying struggled on the boughs—the dying at the root.

With dripping sword, and horse all sweat, he rode into the town;

The Black gore from his plume and flus was raining hotly down;

His mace was bent, his banner rent, his helmet beaten in;

The blood-spots on his mail were thick as spots on leopard's skin. And after came the hostages, the ransomed, and the dead;

The cloven Moors, in wagons piled—the body or the head;

And heaps of armor, golden-chained, gay plumes and broken flags,

Piled up, as in the tanner's yard the heaps of beggars' rags.'

We present this picture to our readers with no little reluctance, because it is one of our own compositions made in the haste and hurry of a driving business during the past Centennial season, and under various difficulties. At first we thought we should make it an example for criticism, or give our readers our idea of mistakes which were made in it; but we think best to leave it, and if any are disposed to draw any lessons from it for the benefit of the fraternity at large, we shall be very glad to have them criticize it as severely as they may desire, and have them send their ideas to us for publication. The pictures were printed by the Centennial Photographic Company on Dresden paper.

#### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 42.)

As I have praised Agricultural Hall for being the best adapted to photographic operations, so I must denounce the Machinery Building as the worst. It is a pity that it was so, for very many of the most interesting objects of the Exhibition were accumulated there. Unless we succeeded in "getting up" with our orders-either very early in the morning or during the dinner hour at noon-we were much impeded in one way by the vibrations caused by the continuous motion of the many magnificent machines in actual operation; and, again, here, more than in any other place, by the jostling, crowding, and pushing of the people.

The structure was not especially well lighted, but we had, notwithstanding, orders from many prominent manufacturing firms to make photographs of their exhibits, of the largest size—i.e., 20 by 24 inches—including the portraits of their chief operatives, whilst at their respective stations.

We were obliged to attempt such experiments occasionally, but the results were always analogous to the daguerreotypes made when sun-picturing was first introduced.

Sharpness, the great desideratum of many photographers (generally of the third or fourth rate class), was never attainable. Such pictures were not impossible of production by means of photography, but they could only be made by composition effects in printing; processes that we really had no time to prosecute. In gallery work our subjects frequently complain when they are obliged to remain perfectly still in one position for a minute. Think of it, then, when we demanded an hour's exposure.

I must give the palm of merit for her ability to remain more steadfastly immovable for a length of time (I hope that she received a medal of award for her many other good qualifications) to Mrs. Maxwell, of Colorado, the lady who made such a magnificent display of stuffed animals - birds and beasts-killed and afterwards prepared by her own hands. She was quite anxious to have photographs of her collection, but she was equally solicitous to find her own face included with those of her favorites. Be it remembered that her pets were grouped together in a corner of a very dark, but otherwise attractive, building, and you can readily believe that there, exposures of half an hour were necessary for stereoscopic pictures, and longer times for those of larger sizes.

During such trying periods I don't believe that the woman ever winked. I am fully convinced that she has no "nerves." I am really telling you the truth (intyminty, as the children say), concocting no fable, when I relate to you how a photographer from the suburban districts, after examining a handsome stereoscopic picture of the lady's specimens, with herself occupying a prominent position in the centre, asked me confidentially if the woman was not stuffed as well as the rest of the animals. I can tell you many anecdotes equally as amusing, and I shall endeavor to slip in one now and then, but in the meanwhile I have been reminded that my articles are not altogether practical. Expect, then, gentlemen, very soon a list of formulæ that will enable you to photograph anywhere, from the arctic to the torrid zones, inclusive.

Horticultural Hall presented some advantages to us. During the very warm weather the thermometer did not indicate as many degrees of heat inside of the building as it would have done if hung out in the open air. The entire body of the edifice, or rather the floor of it, was occupied with plants of a foreign or tropical growth. To the great disgust of our native amateur male and female gardeners, there were no flowering plants. The indication of a banana or pine-apple tree, showing an effort to put forth its fruit-growth, was hailed with astonishment and delight, generally evidenced by the widely opened mouths and staring eyes of the appreciative spectators. What were and are now known as the "forcingrooms" were especial favorites with me. Ensconced therein at the proper time of day, you were sure of all of the benefits appertaining to a low skylight. You could diaphragm your lenses down to the smallest stop, and you were absolutely assured that the leaves would not be disturbed by the faintest zephyr. If necessary, you could very readily (with the proper permission) keep the people from interfering with you, and generally have it all your own way.

The presence of visitors, however, was rather a relief to the tedium of waiting for an exposure to be finished; and as they would insist upon asking us questions (no doubt believing us to be attachés, and well versed in horticultural lore), I cannot but look back or remember with contrition the many yarns that I have invented and sent broadcast throughout the land. I recollect extolling the merits of a cactus to an appreciative group of visitors as a centegenarian, that would not have been honored by either a Mexican or South American with a cut of his machete.

A very good incident occurred whilst I was working in Floral Hall. The newspapers kept every one advised as to the receipt by the "Exposition" of new articles of interest. It was heralded that the government of the Sandwich Islands had forwarded to us some of her much-talked-of bread-plants.

A group of ladies and gentlemen approached the corner in which I was working under the espionage of a "guard," and the spokesman of the party asked where one of these "bread-plants" could be seen? The officer was an Irishman, and he scratched his head—an unfailing sign of slight bewilderment. Native wit came to his aid, and, not knowing anything about the locality of the trees, he gravely directed them to the "Vienna bakery," where he assured them they could get any description of bread, from a biscuit up, freshly baked, at least twice a day.

It was a matter of great wonderment with many, and experienced photographers were sometimes to be included with "the many," that we could succeed in producing such fine "interiors," irrespective of the masses of people constantly surging about. I am forcibly reminded of something that made a great impression on me at the time, and occurred whilst I was but an apprentice in photography. An old stager in the line of a "viewest" was showing me some gems, representing brooks and cascades, trippling and dashing through masses of well-defined foliage. In my innocence and ignorance I was quizzing him as to how he managed to make his pictures, some parts of which seemed to have had only instantaneous exposures, and others a very full time.

"Why, you young fool!" he replied, "do you not know that if you cannot get such a picture in half a second, the half of an hour will do as well." So with us, the longer the exposure—with all due deference, of course, to the qualifications of our plates—the better.

The columns, adornments, and masses of goods did not move; but the people, happily, passed along, and but in exceptional instances, individual parties remained so short a time in any one place, that they made no apparent impression upon our plates.

We have passed through the portrait department, and had a glimpse of its operations; have considered the matter of making "exhibits," and just adverted to the "interiors." Now, we must have a word or two about the legitimate view, and then discuss the processes best adapted to each classification of work.

The Centennial Photographic Company spared no expense in procuring the best materials, apparatus, lenses, and what they deemed the highest order of talent, to further their plans. Numbers of operators were congregated together, and I can bear testimony to the general disposition towards exchanging experiences, in preference to any reticence of opinion.

Even our friend Kilburn, of New Hampshire, came on, and was induced to assist, giving us a brilliant dash of outdoor work. Mentioning him, I must give him the credit of having injected an idea into my head, that, without him, it would probably have been devoid of.

We had been considerably troubled with streaks and curious markings in the "open skies" of some of our landscape negatives. After removing a plate from the silver bath, we had adopted the plan of well draining it, and then rubbing the back perfectly dry with "Jo" paper. Mr. Kilburn proposed to suspend the latter operation, and simple as the expedient was, it seemed to remedy in a great measure the difficulty. It is astonishing how really valuable these little dodges become.

The tall tripods that I have been telling you of, in connection with our photographing of the "exhibits," remained in equal favor when applied to outside purposes. Almost invariably, when making a general view from the ground, an elevation of eight or nine feet to your camera is desirable. Then, again, gentlemen, if you have any regard for your reputations, I beg that you will always use lenses of the longest focus that the subject will admit of.

The Board of Finance had granted permission to a certain passenger railway company, the privilege of running cars upon tracks planted most detestably near (photographically speaking) to the principal buildings. These cars—the rails upon which they were run, the sleepers that upheld the latter, and in fact all of the appurtenances to such a railway—gave us a heap of trouble.

As adjuncts to the making up of a foreground they were not a success, and it was difficult to secure the picture of a building, when, ad interim, the scream of a locomotive's whistle would not be heard, or the clouds of steam escaping from it could not be seen.

I feel entirely confident in the assertion that railway accessories, consisting generally of lines or iron bars, of broken roads, ugly fences, dilapidated platforms, and hastily improvised ticket offices are not, as a general thing, the happiest accompaniments to a picturesque composition. To get rid of these, then, the only resource was to remove to a long distance from your object, and force more attractive bits into your foregrounds by the use of even six or seven-inch lenses for stereoscopic purposes. My own preferences finally induced me to adopt lenses of four-inch focal length as being the most generally serviceable.

We had unexampled facilities for testing the comparative merits of different lenses. Each operator, according to the character of the work he had in hand, was provided with a complete series of lenses ranging from the shortest to the longest of focal lengths. It is gratifying to state that, unexceptionally, preferences were given to the lenses manufactured by our countryman, Mr. Morrison. I am personally unacquainted with the gentleman and have no interest in extolling his productions; but I can assure him and yourselves that there will never again occur an occasion upon which such manufactures will be put to so severe a test.

In some cases, in order to supply the demand for pictures of objects of extraordinary interest, we were ordered to make as many as one hundred stereo negatives without change of position. To facilitate this end, we had furnished to us boxes for stereescopic purposes that carried four tubes upon their fronts. Using 8 x 10 plates, we could then obtain upon one glass two double negatives, each of them 5 x 8 inches in size. Under such circumstances, however, we were sadly restricted as to much movement of the instrument. In the first place, it was entirely necessary to have it scrupulously level. Then, obviously, you could neither swing the back, nor alter the upward or downward position of the lenses,

Again, all of the tubes had to be exactly matched, and I imagine that all will agree

with me as to the difficulty in obtaining four objectives, all equally perfect and persistently alike. In some remarks that I shall ultimately make in regard to failures in manipulation, I shall again refer to the uses of such combinations of lenses.

It will occur to many of you that we had a good many acres of ground to traverse over, and that some of the buildings represented large fractions of a mile in length. How did we manage the dark-room operations will be the next query? In the photographic studio proper, there was a good sized apartment fitted with all of the appurtenances of a "dark-room." This was for general use, and intended as the centre of operations when our instruments were not removed too far from it. To provide for such emergencies, smaller, although convenient dens were constructed in the most prominent buildings, and again, every known movable description of wagon, closet, or tent brought into use.

The most important of the latter contrivances was drawn around by a horse, and the appearance of the animal, with its burden, became sufficiently well known to claim for it historic pretensions. It was most certainly made the subject for a "poem," but that, like many another good thing, will have to be consigned to oblivion. Furthermore, we had two-wheeled arrangements that you could perambulate about in any direction. Sticking your body, from the waist upwards, in one of these, your nether extremities never failed of eliciting all sorts of remarks from the passers-by. One day, while seeking privacy in one of these travelling boxes, and being industriously engaged in the preparation of a plate, I was most unexpectedly treated to tne capsizing of the whole concern. A sudden gust of wind, the precursor of a thunderstorm, swept over the affair and turned it upon me.

You can imagine the effect. The caboose was well supplied with chemicals, and carried a bath capable of coating 11 x 14 plates. That drenched me from head to heels. The accompaniments of iron developers, pyrogallic intensifiers, and the hodgepodge of other little photographic niceties all tended to my personal adorn-

ment. Half an hour afterwards the appearance of my face and body outrivalled the scars, streaks, or tattooing of any Fiji Indian, and I believe that if I had sought an engagement from Barnum as a specimen of supreme ugliness, I should have been at once offered a handsome livelihood.

The dragging around of these photographic vans was no great joke in the hot months, and although we condensed our outfit to useful and necessary things only, we still had a good deal of dead weight to tug after us.

For a day's work we had to be provided with at least three differently sized camera boxes and their appropriate lenses; tall and short tripods, with a step-ladder; baths, developers, collodions, and sometimes water; last and heaviest of all, boxes of glass. Gentlemen, you who prosecute business only in photographic parlors and soil your fingers in well-ventilated, well-appointed dark-rooms, look with commiseration upon the self-appointed sufferings of those of us who venture upon these outside walks, and criticize not too heavily our shortcomings.

I have heard all sorts of assertions in regard to the capacities of an operator in the production of view negatives.

Take them as they would run, assorted sizes, and with the aid of a competent assistant, I have felt completely tired out and overworked when I have brought in a return of fifty plates for a day's work.

I recall, with the utmost reverence, the stories that I used to listen to in the earlier days of photographic experiences, of how certain gentlemen, evidently magicians in our art, were able to attend to the demands of hundreds of customers daily. With me, it has always taken time to make a negative, or, at least, a good one.

#### LATEST FROM THE STUDIOS.

Mosaic Notes and Queries.

TO THE EDITOR PHOTOGRAPHER.

In reading Mosaics for 1877, 1 find many things I want to ask about, and some that I would like to comment on, always, I trust, in a kindly spirit.

I find many good things well said, shining

like "apples of gold in pictures of silver" through its pages, and among others, on pages 41 to 42, by F. M. Spencer, I find a string of "jewe's," twelve in number, all of the "first water" but one, and that, his eighth aphorism or command, has a "flaw," or I am at fault.

It might be considered altogether a table of photo-commandments; the old "Mosaic law" had ten, with one added under the Christian dispensation making the "eleventh," and to his table he adds one more, the twelfth, in small caps, as summing up the essence of all the others. Accepting them as commandments, I find the eighth to read:

"Take care of the 'details,' and the 'outlines' will care for themselves."

And what I would ask is to know if the two words in italics—they are italicized in the original also—have been transposed in printing by some mistake, or whether it reads now just as Mr. Spencer intended. If transposed, it would read and teach just as I believe, and teach too, on occasions; but if Mr. Spencer meant to say just what he now says, I would ask him as a personal favor to explain more at length, by an article in your pages, exactly what he means by it as applied to practice.

If he is right, I have been working on a wrong principle all my photographic life; while if he is wrong, or his meaning is wrongly stated, it might mislead some beginners to their injury.

The principle involved is somewhat important, and an explanation may be well worth the space required.

Yours truly,

E. K. Hough.

NEW YORK, February, 1877.

#### BLISTERS.

DEAR SIR: Inclosed please find a riddle for "Sphynx."

I am not troubled with ordinary small blisters, as a solution of salt readily does away with such; but occasionally I have visitors like the inclosed,\* which come, perhaps, once in two or three months, and then seldom stop long. They are from the size

<sup>\*</sup> These were the worst examples of blisters we have ever seen.—Ep.

of a bean to two-thirds the size of the palm The inclosed are ordinary of the hand. appearances; will not find more than two or three in a batch of seventy-five sheets; have tried to produce them by changes of temperature from ice to boiling water and intermediate degrees, but unsuccessfully, and am now obliged, on this point, to side with "the other poor animal and give it up;" use silver bath from 50° min, to 60° max. (Pile's test), silver three-quarters to one minute, fume twenty minutes; bath slightly alkaline; can add my mite to the article in the last journal about filtering out iodide from negative bath; always have trouble when I do it, which is seldom; have done it perhaps twice in two years, and sorry both times; believe more "holes" are results of dirt than aught else. R. B.

#### VIOLET SCREENS.

GENTLEMEN: Your welcome letter of 25th received asking for full particulars and method of working the violet light and screens. I use nothing but violet tissuepaper under my skylight in the form of sliding screens, which I can haul to either side, and can regulate my light by the screens to any weakness or strength, and can produce any play of light I want. bottom and side screens I use nothing but common sheeting, which I paint with whiting and color enough to give me the violet tint. Care must be taken not to mix the color too blue, so as to get too harsh a light on your subject. I like the violet light and screens much better than the white.

I time my subject from 20 to 45 seconds under the violet light. When I haul my top screens under my skylight, and then place my bottom and side screens, I have nothing but the violet light on my subject, and it is far superior, giving me rounder negatives than under the white light.

G. M. GROH.

GRAND RAPIDS, January 23d, 1877.

Gents.: For Mr. Woolf's benefit I would say that the Robinson trimmer never needs sharpening; the mat itself constantly performs that service. I used the first one Professor Robinson made, and with it trimmed an average of three hundred 8 x 10 ovals per day for three years, and it worked

as well on the last print as it did on the first. The work I did for Professor Watson, of Ann Arbor.

FRANK W. CARPENTER.

Dear Sir: I send you formula for producing a retouching surface; it is sold by some dealers. Take two ounces gum arabic and six ounces rain-water; mix and filter; flow your negative after washing; let it dry and then flow with benzine. By keeping the negative slightly warm you can retouch with any pencil. I use for retouching Faber's metallic pencil, the same as are used for writing on enamelled cards. There are two kinds; the one in red-colored wood is the best. I receive the *Photographer* regularly through our news agent, and I find many useful hints. Long may you prosper.

NEAL P. HARRINGTON.

#### "OVERIODIZING AND PINHOLES."

SEVERAL excellent articles on this subject have from time to time appeared, and it seems to us something else than the bath may be "overiodized and full of pinholes." Suppose we are making pictures of "the baby," rooms are full, we are tired, and long past lunchtime, hungry and faint; just then we may be overiodized, and some unguarded word or look may be misconstrued by the fond mamma. Again, our patrons may mention that they have been to try "Smith," we having previously faithfully tried to give them satisfaction; but they "tried Smith, and they didn't have any kind of a picture, although he does nice work, and very cheap too " (\$2.00 per day, cheap)! Now here is just the place for pinholes, for they will see right through us if we are not careful, as the majority of photographers are prone to have a soft spot where the green monster lurks. But it is better perhaps to always be good-natured, and while noticing everything, hear nothing that is likely to make us look or say anything sharp, or that we may be sorry for. So we had far better not allow ourselves to become overiodized by vexation, or spread ourselves out so thin as to be pinholy.

J. PITCHER SPOONER.

#### THE INSECURITY OF CARBON.

A DREADFUL scare has been given to carbon during the past month, owing to an unprecedented phenomenon which has occurred, contrary to the expectations and predictions of "Old Probs." and "Young Indications" combined. We have had no less than fourteen days of bright warm sunshine since the last issue of the magazine, which has caused a consternation amid the staff of the leaders of the "woolly" process unprecedented and unequalled by anything that we have ever heard, except a crust of bread thrown into the midst of an ant-hill. Everybody is excited, and all put to it to know what to do.

The carbon process went very well during the damp cold weather, when the tissue remained pliable, but as soon as the sun began to shine upon it, it began to distort and contort, as though in the midst of the most violent spasms; one moment it would stick to the glass, and the next make a leap into the air suddenly, carrying with it even the polished surface of the negative, to say nothing of the films. How to account for this nobody knew. We all remember that last November a very serious accident occurred in the heavens, when one of the small stars caught fire from some unknown cause, and the flames gained great headway before the astronomers could be notified. During the interim several uninsured satellites were entirely destroyed. It is supposed that the continued burning of this conflagration is what has been the innocent cause of the extraordinary amount of sunshine which we have recently been blessed with; the embers are doubtless still glowing, for while we write, the atmosphere is as serene as any advocate of silver printing could possibly desire, when looking upon the beautiful results which he produces each day under such circumstances.

Some of our astronomical friends seem to think that a fire in the heavens at so distant a locality could have very little effect upon our earth.

We are quite sure, however, that Mr. Lambert and his satellites do not agree, for they have all been more or less scorched, and their tempers affected by the aforesaid conflagration.

Professor Proctor, the distinguished astronomer and heavenly expert, made an official investigation into the origin of the fire, and publishes some very interesting results, none however which are encouraging to the carbon worker, but as we always desire to be frank, and to sound the alarm for the benefit of all of our readers, whether it be against them or for them (excuse the hibernicism), we feel that we ought to tell them before they all purchase the Lambert process what is liable to occur.

Professor Proctor seems to think that as much recklessness was shown in the construction of the aforesaid star, as was evinced by the builders of the Ashtabula bridge, for it seemed to have been enveloped in hydrogen gas. We who work the magic lantern are especially cognizant of the fact, that a spark dropped from the pipe or segar of any careless photographer in any neighboring comet or star would at once cause this hydrogen envelopment to burst into flames, even though every star was supplied with a quantity of Babcock's fire extinguishers; under such circumstances there would be very little hope of saving even a man's lenses or his waste nitrate of silver, no matter how abundant the supply of water, or how efficient the local fire department, or even if Mr. Shaw were present. Having thus ascertained the cause of the disaster (and here let us thank Professor Proctor that he did not, like other insurance experts, attribute the fire to the carelessness of some photographer in the neighborhood), he proceeds to call attention to the prospects ahead, in the matter of sunshine and heat. He tells us that the sun is surrounded with an enormously thick covering of hydrogen, and that it is frequently on fire to a greater or less extent. Moreover, like the recently destroyed star, the sun is rushing through space dragging along the earth and other planets with it, striving to reach some distant and unknown station, no one knows where, with the same anxiety and persistence as the celebrated foreign process seller. Whether it be to gather more satellites, or to get out of the way of those whom he has gathered we know not.

Professor Proctor does not tell us, neither does he profess to have a visiting list of this celestial individual, and so we have no means to find out when the sun will be, or where and how hotly he will shine exactly. There is one thing, however, which has a very unpromising look. Father Secchi, the venerable Italian astronomer and friend of our own Professor Morton, discovered that an unusually large quantity of magnesium, a metal which, we know, develops a great deal of light as well as heat when burning, was used as fuel by the vulcans of the sun in July and August last, and as it takes about six months or more for the warmth of the sun to reach us, we may without doubt look now for a great deal of solar heat, and perhaps the fourteen days already alluded to are the first instalment.

We all know, or those of us who have asphalt roofs, what the effect of the sun is upon them, and thus the sun seems to be affecting the carbon tissue, so that a very sad case was very liable to occur in St. Louis only a few days ago. We have not all the details; we are waiting for the third number of our "red-hot" contemporary there to give them to us, and we presume the reason the aforesaid number has not arrived is because with his customary enterprise he is striving to collect all the facts, prefering to delay his issue rather than not to give them. We will give what we presume is nearest to the truth. A celebrated prima donna who sings in one of the rich churches in that goodly city, and in the tower of which church is a photographic studio, after delivering herself of the grand voluntary, during the first prayer seated herself to examine the bonnets of her fellow-citizens below. Suddenly she was treated to a red-hot application upon the back of her neck, of what upon applying her hand thereto appeared to be some tar from the asphalt roof. Shrieking with pain, she leaped into the auditorium below, landing with her feet upon the neck of Deacon Scholten, one of the pillars of the church. A terrible consternation followed, which ended in the entire breaking up of the service. Of course, a meeting of the board of trustees was held at once to investigate the cause of the war. They examined the roof, and found that the sun had as yet made no

impression upon the gravel and tar, and therefore they must seek for some other. cause. They called at the door of the sinful photographer whom they knew was accustomed to work on the Sabbath, as we are sorry to say so many photographers do, and the secret was revealed. He had been sensitizing carbon tissue, and had hung it to dry in his dark-room, which was unfortunately exposed to the south, where the direct rays of the sun had full play upon it; as a result the carbon left the paper upon which it was coated, fell upon the floor, ran through the cracks down into the organ loft upon the young lady's neck, with the astonishing result which we have described.

Now does not this present a most dismal prospect for carbon? True, it does not fade, but shall we not say that it is insecure? And we have not told all, for Professor Proctor gives us still further facts. He argues that the sun from some cause or other is behind time, and is trying to make up, else like a Mississippi boat it is racing, and the engineer of the sun is feeding his furnace with pitch and turpentine and magnesium. If such is the case, a terrible future is ahead for carbon. Even if the sun is quietly proceeding on its wonted way without any extraordinary effort, the danger that its hydrogen envelope will take fire should fill us with constantly increasing apprehension. If such an accident should occur, the heat would be so great, that not only the vegetation of the earth, Mr. Lambert and his staff, all his green-colored carbon tissue, and all other green things on the surface of the earth would perish, and human life would be totally extinguished. Even if the sun should not be entirely destroyed, and only a portion of it catch fire, there would be enough heat to roast the earth until it was as black as carbon itself. Carbon would then certainly be triumphant, and if Mr. Lambert could mount upon a piece of it, and ride into some other planet, he might still continue his present business. Even if the sun conducts himself as all good suns should do, Professor Proctor still points out additional sources of danger in the way of obstreperous comets, as active in their movements as the most irrepressible process seller, and any one

of these heavenly tramps may set the hydrogen on fire, either accidentally or purposely, and cause the doom of the carbon process.

Once upon a time, we visited the celebrated powder-mill of Messrs. Dupont in Delaware; we were compelled to take off our shoes and wear rubbers, in order that by no careless misstep we might, by the nails in our shoes, cause an explosion.

We do not think this plan would be any benefit in preventing the total going up of the carbon process when the hotter weather comes; but one thing certain is, that photographers will have to quit smoking in their dark-rooms, and, when they smoke outside be careful of fire.

Of course we felt very dismal when reading the predictions and probabilities of Professor Proctor, and immediately set about to see what could be done in the matter. We fear that we have not much to say that is encouraging. There is no use in our applying to Professor Draper, thus sacrificing our health by wading through the slush of New York, and clambering into the fifteenth story of his observatory, wasting our good breath, for we know that he would say that he had no jurisdiction in the sun, his business being entirely with the moon; and even if we should tell him all that we have heard, and all we fear for the carbon process, perhaps his only answer would be, "moonshine." There would be no use of our taking bichromate internally, because that would result in certain death. What, then, can we do? What measures of safety ought we to take? Nobody seems to have any jurisdiction in the sun, and we can only suggest. The ice crop is good, fortunately, and it may be that the sun will hold up and give us a still further chance to gather that necessary product. If it does, we recommend all photographers to store their spare room with ice-that is, if they wish to practice the carbon process - for soon the formula for carbon sensitizing solution must read:

 Water,
 .
 .
 .
 10 parts.

 Bichromate,
 .
 .
 .
 1 part.

 Ice,
 .
 .
 .
 .
 39 parts.

With such a formula there may be some hope. We would also recommend that

buckets of water be kept constantly within reach, and that all the doors should be left open, so that there will be plenty of draft to play upon and dry the tissue. Then, after sensitizing our tissue by the above formula, let us sit down and hope that the hydrogen will not be brought in contact with fire and the comets and smoking photographers, and those who work on the Sabbath will see the propriety of conducting themselves in an orderly manner. And yet we are perplexed when we realize that with all these predictions, unless Professor Proctor has been grossly deceiving us, the sun is liable at any moment to burst into flames. There is no telling through how many floors the carbon will ooze, and upon how many lilywhite necks it will impress itself, or how many congregations it will break up. A little of this could be prevented by photographers working less on the Sabbath, especially those whose studios are on church roofs or in St. Louis, and other such "redhot" places, but that would be but a drop in the bucket. Let every photographer procure a sufficient amount of tungstate of soda (enterprising stockdealers please be sharp on this suggestion), and coat themselves with it, so that, when the grand conflagration does occur, their lives will be prolonged somewhat, and mayhap until there is a chance of escape.

It is our disposition to usually take a hopeful view of matters and things, but we must say we place but little confidence even in the merits of tungstate of soda, or any other incombustible preparation known to chemistry.

We do hope that our readers will give us their suggestions on this subject. We have never tried it, but, perhaps, the suggestion may be found useful to carbon workers, to coat their tissue with tungstate of soda before they hang it up to dry, immediately after sensitizing. And to all we would suggest that they have their darkroom doors made to open both ways, and fire escapes applied to each window, together with ample water-tanks on the roof, having a connection with the studio, that the flow of water may be brought down at any moment.

We now leave the subject with our read-

ers, feeling most dismally hopeless on the subject, and ready and willing to be cheered up.

#### PHOTOGRAPHIC NEWS.

THE Edinburgh Photographic Society Exhibition, which opened in that city on the 20th of December, was very successful, and really quite an international affair, as exhibitors came not only from the continent but from America. There were about two hundred exhibitors, and the National Galleries of the Royal Scottish Academy, the use of which had been generously granted for the exhibition, were completely filled.

We find in the English journals the report of the judges appointed to award the medals, from which it appears that the highest degree of merit was awarded to a picture by Andrew Karelin, Nijnii-Novgorod, Russia, who received the gold medal. Mr. Karelin also exhibited some excellent work at the Centennial Exhibition, which attracted much attention, and for which he was awarded a medal here. Among the other exhibitors who received silver and bronze medals, we notice the names of many of the leading English photographers, besides some from Germany and Switzerland.

The judges chosen, among whom were two practical photographers, appear to have given very general satisfaction, each award being accompanied by a report, setting forth the "characteristics" of the work on which the award was based.

The closing paragraph of the judges' report, in which they decline to place highly retouched pictures "in competition with those printed from the original and comparatively untouched negatives," contains a forcible suggestion which it will be well for photographers to consider, and avoid, if possible, excessive retouching.

We congratulate our brethren of Great Britain on their success, and hope the exhibition may prove to have been productive of much good.

It may be interesting to photographers to know that the addition of sulphuric acid to a thin tender collodion or emulsion, will impart to it any degree of toughness, according to the quantity of acid used. Emulsions or dry-plate collodions are usually made from powdery cotton, which has been made at a high temperature, and sometimes produces a film so tender as to be very liable to injury in the ordinary manipulations. In cases where such collodion must be used, this knowledge may be very useful. Of course, the acid must be added according to the degree of rottenness of the collodion. It also has a tendency to increase the intensity.

MR. JAMES M. WATTLES, one of our subscribers in Grayville, Illinois, makes a very original suggestion, which might be of a great deal of practical use. His idea is that of introducing, as a substitute for drops, flats, high borders, and other expensive and dangerous paraphernalia of stage-scenery, scenery upon screens by means of the magic lantern. The thought, he says, occurred to him while reading of the late terrible disaster at Brooklyn. This idea of adapting the principle of the magic lantern slide to scenery for stage purposes, seems to us to be quite an original one. There are, of course, drawbacks to this method, which could no doubt be overcome by a little further looking into the matter, but there are decided advantages. Not only would such a method insure greater safety, but scenes could thus be made much more natural and beautiful than they are now. A great deal of time and noise would also be saved. We hope Mr. Wattles will be able to work it out, and make a fortune out of it.

LEST the world should be ignorant of the fact, we desire to announce that we have read the second number of the St. Louis Practical Photographer, and have noticed what Messrs. Anthony, Lambert & Co. say about us. We trust they will forgive us for reminding them that they forgot to mention the gold watch which we received in Philadelphia, August 25th, 1868, for "invaluable services," etc., etc.

A MAGNIFICENT GRAPHOSCOPE.—Since the Scovill Manufacturing Company, of New York, have taken up the manufacture of graphoscopes, they have been accomplishing greater and greater triumphs in making those very useful and desirable instruments. The most beautiful one however we have seen, has just been examined by us, and it is a marvel, both in its excellence and mechanical construction, to say nothing of its artistic finish. It is compact in form, occupying more space vertically and less laterally than such instruments usually do. This is accomplished by sundry new mechanical arrangements for moving the parts to and fro, which are really ingenious. The wood-work is made of fancy-colored woods, harmonizing most tastefully with each other, and various portions are elaborately inlaid. The magnifying lens is protected by a broad silver-plated band, which also is a help to the eye in looking at a picture, and the stereoscopic lenses are protected by silverplated doors, which are closed when the instrument is not in use. The whole affair is a bright and shining piece of apparatus and most excellent withal.

We congratulate the parties named on being able to produce instruments which far excel in quality and finish anything that we ever saw of foreign manufacture, and we are glad to know that they are finding a large and growing trade for them.

The following, translated from the Paris Moniteur de la Photographie, indicates the progress in introducing violet light:

- "At the request of Mr. Scotellari, a committee, composed of Messrs. Liébert, Franck, and Andra, has been appointed to assist at comparative experiments on the advantages of the use of violet light in the lighting of photographers' studios.
- "Let us remark in this connection, that, after the numerous practical trials to which Mr. Scotellari has invited all persons desirous of giving a personal investigation of his system, it is established beyond a doubt, that violet light reduces by one-third the ordinary time of exposure.
- "The following experiment is repeated every day in the experimental atelier of Mr. Scotellari: Any person sits fifteen seconds in that part of the atelier furnished with violet glass.
- "After the exposure, the sitter moves to another part of the sash which has not undergone the change. The second half of the sensitized plate, which has not yet been exposed, is uncovered; an exposure of forty-

five seconds is given, and then the two images are developed at the same time. Both appear together with the same intensity, except that the first shows more detail.

"If the two halves of the plate are equally exposed, say fifteen seconds, the first (that which has been impressioned by the violet light) will produce a well-developed negative; the second, obtained by ordinary lighting, is altogether insufficient.

"These are conclusive facts, so much so that the most skeptical leave this atelier entirely convinced. We may cite among these last Mr. Carette, who entirely incredulous, desired to operate from beginning to end, and was so much pleased with the result obtained that he has caused the immediate preparation of an experimental atelier in his own establishment.

"If we insist on these facts, it is because it seems to us that they offer a very simple and practical solution of a problem which for so long a time has occupied the attention of all portrait photographers, viz., the reduction of the time of exposure independently of the operating process adopted by each one of them."

#### SILVER versus CARBON.

BY E. Z. WEBSTER.

The relative merits of the two abovementioned substances heliographically considered, having become the all-absorbing topic of inquiry and discussion among the photographic fraternity, I take the liberty of ventilating my own humble views upon the subject (provided the editor of the *Pho*tographer thinks it worth while to publish them).

And in order to analyze the subject intelligibly I have reduced the matter to a tabulated form, with comparative points or degrees of excellence, and we will compare the relative merits of the two processes as they now stand.

,		Silver.	Carbon
1st. Softness and Delicacy,		10	8
2d. Simplicity of Manipulation	n,	10	5
3d. Uniformity of Results,		10	5
4th. Economy of Production,		10	7
5th. Indestructibility, .		10	6
6th. Permanency,		8	8
		_	
		58	39

Here we have a difference of nineteen points in favor of old Argentum, even though we concede equal permanency, of which there is no certainty, because time alone can settle that question. Theory will not always do to depend upon.

But let us take up each item of our "bill of particulars," and discuss their merits.

Hem 1st. Softness and Delicacy.—No one with an unprejudiced mind can compare the best results of the carbon with the best results of silver, without allowing that our verdict in favor of the latter is an extremely liberal one, to say nothing of the infinite variety of exquisite tones and tints of which silver is susceptible.

Hem 2d. Simplicity of Manipulation.—If any man thinks that we claim too many points on this item, let him read the carbon process, and then if he is incredulous let him try to work it, or let him put it into the hands of any average photographer and watch the result, or if he thinks he can rely upon the skill of "almost any intelligent fifteen-year old boy, to produce really artistic results," let him do so and report.

Item 3d. Uniformity of Results.—In regard to this item there can be no question (our verdict is based upon the sensitiveness of the carbon processes to atmospheric influences), together with the difficulties of manipulation.

Item 4th. Economy of Production.—All carbonites allow that the silver process is the most economically worked, and so long as supplies are controlled by close communion principles, such will continue to be the case.

Item 5th. Indestructibility.—By this we mean that a silver print will bear rougher usage, and will undergo greater vicissitudes of heat or cold, wet or dry, and come out in better condition than carbon.

N.B.—We have reference to all processes based upon the prevailing carbon tissues.

Item 6th. Permanency.—This item seems to constitute the principal theme and "stock in trade" of every new process enterprise, and we hope to be pardoned if our remarks seem rather prolix.

The endeavor of certain process-mongers to advance their own interests by creating distrust in silver printing is not the fair thing; their assertion that carbon is less liable to change than silver is not a fixed fact; carbon in its normal or natural condition is doubtless a permanent substance, *i. e.*, not perishable or volatile, and so is silver, especially when oxidized (the condition which silver assumes in the printing process).

" If pure carbon could be applied to the paper in its natural condition without compounding with other perishable ingredients, or resorting to chemical action, then the claim to absolute permanency might be tenable; but so long as a tissue, or film, or skin is required, and that film or skin is of perishable material, and that material is impregnated with chemical compounds, which, by the action of still other chemical compounds, produce the desired result, and then other chemical forces are required to stop the action of the whole, and finally hoping by various manipulations to eradicate from that frail and perishable skin all undesirable traces of those antagonistic forces which have served their purpose; we say, if a picture obtained in such a manner can be relied upon for permanency, we have no hesitation in claiming the same for silver.

That silver prints do sometimes stand the test of time is *primâ facie* evidence that, under certain conditions, silver printing is permanent, and it only remains for us to hit upon the exact point of the difficulty, which is only a question of time, and even now that problem is thought to have been solved. But whether it has or not, silver has nothing to fear from carbon as at present practiced.

When daguerreotyping first came in vogue, that picture was not permanent; but when the simple additional process of gilding was discovered, the daguerreotype became the most permanent of all known pictures; but when the collodion process was discovered, the patentees "bulldozed" the poor daguerreotypers into buying the ambrotype patent process by a systematic and concerted plan to destroy the confidence of the people in the stability of the daguerreotype, in which they were successful, and thus an immensely inferior picture supplanted a superior. The same dodge is attempted now by the carbonites, and it is

a shame that the followers of old Argentum will look calmly on and see him stripped of his glorious heritage without an effort to vindicate his honor.

Suppose you should go into this carbon business, what do you intend to do? Are you going to say to your patrons that "this new process is far superior to the old, because the pictures are permanent, while those which we have been palming off upon you are a fraud?" Do you think such an acknowledgment will impress your patrons with an exalted opinion of your honesty or judgment, and don't you think the confidence of the public in the fraternity would be irretrievably shaken thereby? say you, "We know that silver printing will fade." Yes, so it will under certain conditions; but it is incumbent upon you to spare no pains to render your work permanent; it can be done, and is done now to a large extent by careful workers.

Nine-tenths of the prints from the hands of competent and careful operators, we venture to say, will outlast their usefulness, and the wonder is that so large a percentage of silver prints do not perish immediately, when one looks around among the scores of slipslop parasites who make our beautiful art a means of livelihood, and deluge the land with their abortions.

That silver is not at fault, nor the process a failure, is abundantly proved by the absolute permanency of the negative film, from which thousands of prints are often obtained without apparent detriment, provided the plate has been thoroughly washed and properly varnished, and during the printing of those impressions the negative is often exposed to all sorts of weather for days, months, and years, and yet that negative was obtained by identically the same ingredients with which the paper prints are produced, which is proof positive that the hypo, which is undoubtedly the destroying element, is not in all cases entirely eradicated from the pores of the paper (or otherwise rendered harmless). Albumen is far superior to gelatin as a tissue, but it should have a non-absorbent backing, and if some means of sizing the paper with a nonabsorbent substance like gutta-percha or india-rubber could be devised, the problem of uniformly permanent silver printing would be solved.

Furthermore, that albumen is not the cause of fading prints, is fully proved by the fact that fully twenty years ago the crystalotype process was introduced, and those negatives were all made upon albumenized plates, some of which I can still show, and to all appearance they are as good as the day they were made; that was before collodion was thought of.

Those negatives were not varnished, and no special care taken to protect or preserve them. Messrs. Whipple & Black, of Boston, A. A. Turner, Hugh O'Neil, and probably many other veteran daguerreotypers, can substantiate what I say.

But, says Carbonite, "What has all this to do with the question?" I'll tell you what it has to do with it. We Argentumites intend to foil your efforts to poison the minds of the public, and "bulldoze" us into giving up the advantage which we have, for an untried, unproved, unprofitable, and as yet unpopular process.

We don't object to the carbon as a specialty, nor would we put a pebble in the path of those who choose to follow it. For landscapes, architectural, mercantile, and similar work, carbon seems well adapted; also, in the hands of very skilful manipulators, fine enlargements, and sometimes a miracle in less size is performed; but we are true Argentumites, until old Carbonum, "or some other man" can show us something better.

#### A New Departure in American Photography.

A FEW days ago we received a very happy surprise from Mr. William Kurtz, the wellknown photographer of New York, in the shape of an exquisite composition or genré picture, illustrating the poem by Mr. George Asmus, of "Mainacht," which reads:

In dunkelfeuchter Maienacht-Leuchtkäferche nur glüht, Verstohle noch manch' Herzche wacht, Was blühe kann, das blüht.

Und's Mädche un'nerm Flieder, Da drin en Hänftling baut, Drückt sich die Händ ans Mieder, Und seufzt enaus halblaut :

"Ach, wer heint 'n Schatz hätt!"

Which, filtered from Hessian into English, we render:

On a dark and dewy night of May,
While the glow-worm's light was gleaming,
And some fond hearts were yet awake,

And the flowers with growth were teeming, Stood a maiden 'neath the elder tree,

Where a robin built its nest,
Who sighed 'mid whisperings soft and sweet,
As she pressed her longing breast,
''Oh, that I had a lover!''

It represents, as the verses quoted indicate, a rustic maiden standing by the door of her cottage after the day's work, thinking over her loneliness and wishing, with all the zest and heart-love of the true German girl, that she too had a lover. She seems to have everything beautiful about her, even to a sweet and lovely face, which could easily be in some home or other as a honeysuckle vine is to the door of the cottage, constantly giving sweetness, fragrance, and life to the inmates. But still her heart is unoccupied, and the fond wish comes constantly to her mind as expressed in the beautiful lines of our poet.

Our artist has made the picture to fulfil literally the requirements of the poem, and has evinced great poetical feeling as well as artistic in its production. The homely accessories which adorn every farmer's cottage-door are here, but so tastily and artistically arranged as to help make up the poetry of the whole. As to the photograph, Mr. Kurtz says, in his letter which accompanied the picture, "My idea was to make a picture as unphotographic as possible." He has employed double printing in the production of the print, and the negative has been very carefully etched with great effect. One very peculiar feature of the picture is the rugosity, so to speak, of the surface, similar to the effect produced with crayon on coarse drawing-paper. effect has been most wonderfully accomplished and with capital effect, by a negative made from the ordinary pebble-paper used for making mats, passepartouts, etc., this negative being used in the after-printing. The latter effect is wondrously beautiful and decidedly different from anything that we have ever seen produced anywhere, and certainly a new departure in American photography. The size is 13 x 19 inches, mounted on handsome india-tinted board, and is printed and toned with the same good taste that characterizes the whole picture.

We congratulate Mr. Kurtz on being able to produce so beautiful a result, and the disposition which he has to employ a portion of his spare hours in giving attention to the development of a branch of photography which ought to lift our art very high among the arts. We trust that the pecuniary result which will follow, may induce him to give us at least two or three more such pictures every year hereafter. The one before us will certainly bring him much reputation, and does him great credit.

#### SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday, Feb. 1st, 1877, the President in the chair.

The minutes of the last meeting were read and approved.

On behalf of the committee on the Public Lantern Exhibition, Dr. Seiler reported that an exhibition had been given at the Franklin Institute on the evening of Wednesday, January 31st, to the satisfaction of all present. One hundred and twenty-five slides had been exhibited, and three hundred and twenty-five tickets issued.

On motion, the report was accepted, and the committee discharged.

A vote of thanks was tendered to Mr. L. T. Young for the use of his lanterns, and for his kindness in managing the same during the evening. Also to Mr. E. L. Wilson for the use of his slides.

A number of phototypes from nature, by Mr. Jacobi, of Coblenz, Germany, were presented to the Society through Mr. John Carbutt. On motion, a vote of thanks was tendered to Mr. Jacobi for his handsome gift.

Mr. Hewitt read a paper on the collodical bumen process.\* On motion, a vote of thanks was tendered to him for his very able communication.

The President exhibited a negative in which the lower edge of the film was covered with blisters in the varnish. It was suggested that dampness attacking the

<sup>\*</sup> See page 85.

film, either during printing or in the storing boxes, was the probable cause.

The Secretary exhibited some transparent positives made on gum gallic plates nearly a year old, and which had borne two lengthy sea-voyages without injury.

Mr. Partridge exhibited a negative made on an 8 x 10 plate with a Ross Rapid Symmetrical Lens intended for plates 5 x 4, with a stop of F. 45. The combinations of the lens had been brought nearer together by one-half, according to a suggestion recently made in the *British Journal of Photography*.

A motion to adjourn was made in order that the members might have a better opportunity of examining the working of the Lambertype process, which was demonstrated in an interesting manner by Mr. McCollin. Several exposed sheets of tissue were developed and transferred successfully, accompanied with lucid explanations on the part of Mr. McCollin.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

Boston, February 13th, 1877.

The regular meeting of the Boston Photographic Society was held at the studio of J. W. Black, Friday evening, February 2d. President French in the chair.

The record of the last meeting was read and approved.

This was the annual meeting for the election of officers. It was voted, on motion of Mr. Hardy, that a committee be appointed to collect, assort, and count the votes. The President appointed W. T. Bowers, T. R. Burnham, and Frederick C. Lowe as that committee.

The election resulted in the choice of Frank Rowell, for President; A. N. Hardy, for Vice-President; E. A. Ritz, for Secretary; E. F. Smith, for Treasurer.

A marking list was opened, which resulted in the choice of J. W. Black, W. T. Bowers, and T. R. Burnham, for Executive Committee.

Mr. G. H. Loomis gave notice of a change in the constitution, so as to make the President and Secretary ex-officio members of the Executive Committee.

Mr. Southworth offered a resolution which passed, thanking the past officers for their

very acceptable and efficient services through the year, for the benefit and interest of the photographers and members of the Association

According to a previous announcement, the First President, Mr. G. H. Loomis, delivered an address, giving a history of the Society from its commencement to the present time.

The address of Mr. Loomis, though chiefly of local interest, contains many points applicable to the fraternity elsewhere. In reviewing the several subjects which, for the past eight years, have been before the Association for discussion, that concerning the claims of photography, as related to the older art of painting, sculpture, etc., received merited attention.

Mr. Loomis said, "that while cheerfully recognizing the wonderful skill of the old masters, and yielding due credit and honor to their more modern successors in the realm of high art, we must not, neither must they forget, that it will hardly compare with the spirit of progress to be exclusive and narrow in our professional practice.

"They who presume to have the eve and hand trained to masterly skill, in catching the more subtle tints of light and shade on canvas, may have ample cause for personal and professional pride in their acquisitions; but they can hardly afford to arrogate to themselves everything worth having within the range of art capabilities, simply because the camera, like other labor-saving instrumentalities, has somewhat interfered with Mr. Sketchman's easel. While no sensible photographer would dream of superseding the place in the domain of art so long and honorably held by our worthy exemplars of the palette and pencil, it must be regarded as an act of equal foolishness for the latter to ignore the claims of photography to a generous recognition as an auxiliary art, to say the least, and we have faith to believe we are rapidly nearing the time when a more reciprocal and very much less exclusive feeling will exist between the old and new dispensations. Jealousy is a hateful passion at best, and it loses none of its unhappy attributes when it finds the business, trades, and professions among its victims."

Mr. Loomis commenced his address with

particular reference to the purposes for which the Boston Association was formed, among which were mentioned the repeal of the stamp act, resistance to the bromide patent, reduction of special taxation, and other matters at the time demanding the united efforts of the photographers, and showed how important a part Boston artists had taken in being first at the front, financially and otherwise, in these reformatory movements. In summing up the results of the eight years' work of the Society, Mr. Loomis gave us ample evidence that our labor has not been in vain, inasmuch as all who have availed themselves of the benefits derived from our monthly sessions of counsel, criticism, and mutual encouragement, must feel fairly remunerated for their trouble and expense.

He closed with an appeal for renewed effort on the part of the membership to render still more efficient and useful the work of the Society, and gave some pertinent suggestions as to the matter of rendering the meetings more attractive and entertaining.

Mr. Southworth and others made remarks commending the spirit of the members of the Society for the harmony in which they had worked for the past eight years.

Adjourned.

A. N. HARDY, Secretary.

# LANTERN EXHIBITION OF CENTENNIAL SUBJECTS.

For some years it has been the custom of the Photographic Society of Philadelphia to give a series of complimentary lantern exhibitions, at the hall of the Franklin Institute, for the instruction and amusement of the friends of the members. On Wednesday evening, January 31st, the first of the present season was given before a large and interested audience.

The subject being the "Centennial," it was of course very popular, and during the evening many of the pictures were greeted with enthusiastic applause.

For this exhibition the use of all the lantern-slides made by the Centennial Photographic Company was kindly contributed by Mr. Edward L. Wilson, and a selection of about one hundred and fifty was made by

a committee appointed by the Photographic Society, that number of pictures being about the limit of an evening's entertainment. All of the principal buildings, both exterior and interior, were exhibited, and as some favorite department or group of articles was shown upon the screen, a murmur of satisfaction would be heard among the audience, reminding one of the constant exclamations of pleasure that were so often spoken during the Exposition.

The public in general know but little of the difficulties attending the photography of such a collection of articles as the Centennial drew together from all parts of the world; arranged in buildings and cases of every conceivable shape and color, with reflections from every part of the compass to be guarded against, and subjected to a crowd of curious lookers-on, who were ever ready to handle both instrument and operator without gloves. During the last six months we have heard many severe criticisms upon the negative department of the Photographic Company; but after reading Mr. John L. Gihon's well-written series of articles (now being published in the Philadelphia Photographer), perhaps a fairer judgment will be given by those who did not thoroughly understand the serious nature of the undertaking.

One of the best pictures shown during the evening was the immense Corliss Engine, followed in proper order by Japanese and Chinese vases of wonderful beauty. As upon a former occasion, Dr. Alexander Wilcocks gave a short description of the different subjects; Messrs. Young, Seiler, and Corlies managing the lantern.

B. C. J.

#### DRY-PLATE PHOTOGRAPHY.\*

BY GEORGE W. HEWITT.

During the last few years I have tried almost every dry process that has appeared from time to time in the journals, as the multitude of bottles, compared with the paucity of good negatives in my possession, will attest. I have been in search of the "philosopher's stone" of dry-plate photog-

<sup>\*</sup> Read before the Photo. Society of Philada.

raphy-a process that would do everything better than "wet," and be no trouble in the My course, apparently straight bargain. ahead to this result, has really been in a circle, and has brought me to the point from which I started some five years back. In the time above mentioned I have had recourse for my preservatives to the henroost, the kitchen, the brewery, and the apothecary. I began with albumen, from that to tea and coffee, thence to beer and porter, and finally squills and nux vomica. I gave these all a trial, as well as raspberries and serum of milk. During this siege with the bath processes, I also had on hand series of experiments with emulsions, both washed and unwashed, generally with an excess of something in them always ripening, but seldom ripe. They gave me no end of trouble, and, when failures occurred, it was a great satisfaction to be able to lay the blame on the cotton, the unsuitability of which, is one of the strong points of the emulsion process, and will cover a great amount of chemical blundering. Gelatin, the most seductive of all, did well for a time, but eventually brought me into red fog and blisters. The moist process I did not attempt, but, for the purpose, I conceived a modification of the hot-water process as follows: Add a little of the decoction of mustard-seed (lately advocated) to the hot water in which the plate is immersed, dry off, and give it a dose of syrup of squills, laudanum, and nux vomica, which will produce a profuse perspiration, and keep the plate moist for a considerable interval. I have not tried this, but have seen the day when I would have done so. After all, my experience in trying published formulæ in this and other branches of photography, often as conflicting as they are numerous, has led me to the conclusion that it would be better and appropriate if the heading to some of our photographic periodicals of the day was the opening address of King Powhatan to his congress of Indians, viz.: "All those laws we made yesterday we hereby now repeal."

The following I offer simply as the result of all this experimenting as far as my own experience is concerned. The most desirable quality in a dry plate is the certainty

and uniformity of result, irrespective of its rapidity. It should admit of considerable latitude in exposure; have good keeping qualities both before and after exposure. An adhering film, that would pass through all the necessary manipulation without slipping or blistering, should be free from defects in the film, from blurring and solarization, and should not require backing. The quality of the finished negative is the standard that should guide in the selection of a process, and not the rapidity of the plate or the simplicity of its preparation. The object of photography is to produce a representation on suitable material of a subject selected. Chemical manipulation is essential to the attainment of this end, but we must bear in mind that it is this representation in pictorial form that we require, and not an ingenious or simple solution of a problem in chemistry. Photography opens up a vast field for experimental chemistry, and it is a very interesting one, and also very necessary for the advancement of the art, at the same time if the means are at hand to accomplish what we require as artists, we may leave the experimental part of it to those who have the time and the inclination to follow it. A process having the qualities above described has been before the photographic community for the last twenty years, but has been lost sight of by many in the present conditions of chemical complications. It is a slow process; in fact with me all dry plates are slow. The most rapid plates I have ever made are the gum gallic plates, with a highly bromized collodion and strong nitrate bath. On a well-lighted and open view these plates, when freshly made, will work quite as rapidly as wet plates, but this comparison ceases when the plates are a few weeks old, and the subject has heavy masses of foliage in shadow, or in fact the usual landscape effects. I have invariably found in this case that it required at least ten times wet exposure to bring up all the detail. I have noticed this quality in dry plates, that, while responding quickly to the well-lighted parts of a subject, the film is not impressed in a corresponding degree by the weaker vibrations of light; and consequently, in exposing for the shadows, the high-lights always receive more time than they really require, and it is on this point the generality of dry plates break down, the lights becoming thin and solarized, losing their detail.

With the very rapid emulsion plates I have had little experience, but that has taught me that chances of failure increase in direct ratio with the sensitiveness of the plates, as well as blurring, defects in the film, and difficulty in timing and development. I know that rapid emulsion plates can be made to work as quickly as wet, and do it well. There is no doubt on this point. But I am speaking now from my own experience, and I have never met with any emulsion process that equalled in its results the original one of M. Carey Lea, as published by him in 1870. I do not think any improvement has been made of this process even by himself. As to the reliability of rapid emulsion plates, some years ago, while photographing on the Wissahickon, using gum gallic plates, and giving from three to six minutes, I met a gentleman taking an outing for the same purpose. He informed me he was working emulsion, and giving from four to six seconds' exposure. I afterwards saw the negatives he made on that occasion, and they were excellent and fully timed. Some time after I met him again with his camera, but this time his object was to make negatives of an open-air group of the members of a society out of town. I remarked, that with those rapid plates of his he would have no difficulty; but he astonished me by replying that, as it would be the only chance he would get at the party, and as they were very anxious to have the pictures made, he had left his rapid plates at home, but instead had a few slow plates that he felt sure of. I judged, from what he said, that when he went out for the fun of the thing, he took the rapid plates; his slower ones when he meant business. This gentleman is one of the most successful workers in emulsion in the city, and his experience seemed to coincide with my own, that, for reliability and perfection of result, a slow process will necessarily be the choice.

The negatives that I have brought for your inspection this evening were produced by a process of this character, the details

of which I will now describe. The only novelty that I claim for it is that there is nothing new in it.

The plates are albumenized with Ackland's albumen 1 part, water 25 parts, which I keep in this proportion in a comparatively large quantity, and filter off as much as I may require. If anything, it improves with age.

The nitrate bath, 40 to 45 grains to the ounce, with 5 drops of glacial acetic acid to each ounce. The collodion, any good commercial sample will answer, but my best results have been made with the following, an English formula, the best collodion for any purpose I have ever tried:

Anthony's Snowy Cotton, . 6 grains.

Ether Concentrated, . 4 drachms.

Alcohol 95°, . . . . 2½ "'

Add to this  $1\frac{1}{2}$  drachms of the following:

Alcohol,		6	ounces
Iodide of Cadmium,		112	grains.
Bromide of Cadmium,		40	6.6
Chloride of Cadmium,		16	6.6
Iodide of Ammonium,		80	6.6
Bromide of Ammonium,		28	6.6
Iodine		4	66

The preservative, Ackland's albumen 1 part, distilled water 4 parts.

A solution of gallic acid in alcohol, in the proportion of 60 grains to the ounce, filtered.

These are all the chemicals required, and they can all be kept in stock.

The collodion, after being applied to the plate, is allowed to set well, rather longer than is usual in working the wet process. As soon as immersed in the bath, the plate is kept moving in a lateral direction by means of the dipper for twenty seconds; it is then allowed to remain in the bath from four to six minutes, depending on the temperature; it is then removed and taken off the dipper by catching one corner of the plate with a small piece of filtering-paper held between the fingers, and placed in a dish of rainwater slightly acidulated with acetic acid; the dish is moved so as to cause the water to wash across the film for a few moments, and then left while another plate is placed in the bath; the first plate is then taken up as soon as the greasy lines disappear from its surface, is rinsed under the tap once only

(not washed). A small portion of the filtered preservative is then applied to the film from one end of the plate, and is allowed to traverse the plate, driving the water on the plate before it. It is then drained off, and a second application made of fresh preservative, which is worked into the film by inclining the plate, and causing the solution to move in wave-lines across its surface for about a minute; it is then drained off, and washed under the tap for a minute. After this washing flow over, for a few seconds, water one ounce, glacial acetic acid fifteen drops; then wash well, and finally flow with water one ounce, and the alcoholic solution of gallic acid fifteen drops. Dry spontaneously or by moderate heat.

This seems like a lengthy operation, but in reality it can all be accomplished while the second plate is sensitizing; and as that interval cannot be decreased in any bathprocess, the time between may as well be occupied as not. I usually make a half dozen 4-4 plates in little over half an hour. One of the greatest drawbacks in all bath dry processes is the tendency to streaks in the direction of the dip; by the lateral motion of the plate in the bath this is obviated, provided the bath has not been too much used. A bath that will work satisfactorily for the wet process may be completely unfit for dry-plate work, from the accumulation of alcohol and ether in it. A clean bath in this respect is very essential. In moving the plate in the bath, should the latter be somewhat old, care should be taken that the upper edge of the plate does not leave the bath, but is kept submerged; the bath solution in this case collects in small globules on the surface of the film, and if only momentary, causes unequal action at these places, forming in the developed negative corresponding spots of different density.

The plate, on being taken from the bath, should present a uniform density when viewed by transmitted light, free from streaks and wave-markings in the film. In this respect, a plate that would make an excellent wet plate would, when converted into a dry one, be anything but satisfactory.

Handle the plate as little as possible, and always with filtering-paper between the fingers.

In the washing, at first stages do not allow the water to wash from the fingers on the plate.

The second dose of the preservative may be used for the first of the next plate.

Do not get the solution of gallic acid stronger than three grains to the ounce; beyond this, it becomes saturated, and is apt to form in crystals on the plate, causing spots.

When the plates are drying, do not open the box or closet until they are completely dry.

The plates, if made with the above collodion, or with Anthony's yellow label, will not require backing. On this point I can refer to our respected President, who, in the course of his experience with this process, gave an exposure of twenty-eight minutes, with the second stop of a Rapid-Rectilinear lens, to a view on the Schuylkill River, in which the distance was about twelve miles, and in the foreground white tombstones. The line between the sky and the distant objects is sharply defined, and the detail in the tombstones perfect, without the slightest particle of solarization. This plate was not backed.

The above will also serve as an illustration of the latitude in exposure these plates will allow of. The keeping qualities before exposure I have tested to the extent of one year, and the result was satisfactory. After exposure, I have not had occasion to keep them over six weeks, but in this time there did not seem to be any difference in the development. I have never lost a plate by the film slipping. As for freedom from markings and spots in the film, the accompanying negatives will, I think, be found comparatively free from defects of this kind.

As to the exposure, from three to five minutes will be found sufficient, with a stop of about F. 25 on fairly lighted subjects; but, as I have mentioned before, these plates will allow of great latitude in this respect, and more time can be given without injury to the high-lights.

Development.—Wet the plate under the tap and flow with a plain solution of pyro, three grains to the ounce of water; allow this to remain on about a minute; if during this time the sky and high-lights appear,

continue with it (in cold weather warming the solution) until it brings up nearly all the detail; then add two drops of a citrate of silver solution, ten grains of nitrate of silver, and twenty grains of citric acid to the ounce. Keep this on until all the image is out, then add from six to ten drops more of the citrate of silver, which will bring up the density required. On the other hand, if there is no indication of the image in the first treatment with the plain pyro, pour off and add to it eight drops of a twenty-four grain solution of bromide of potass., and six drops of a saturated solution of carb. ammonia, and flow on after mixing by stirring. This will in most cases bring up the image, if not, a few more drops of the carbonate solution may be added. When the detail in the shadows begin to appear, wash off this developer well, and proceed with the pyro and silver as above.

Fix in a strong solution of hypo.

You will see from the foregoing that, after all, this is but a modification of the Fothergill process. The application of the gallic acid confers the keeping qualities to the plates; makes, I think, a cleaner negative, and one more easily developed than without it. If the plates are to be used within a week or ten days, the gallic acid wash may be omitted, with a gain, in sensitiveness, of about 50 per cent. to the plate, and then becomes the Fothergill process.

In conclusion I may say that albumen, as far as my experience goes, is the main prop and stay of successful dry-plate work, whether used alone, as in the Taupenot process, or as a preservative to a washed collodion film; and if fairly tried, it will demonstrate for itself a peculiar fitness for photographic use not found in any other substance.

#### PHOTOGRAPHIC DUTIES.

BY E. K. HOUGH.

Introduction.

DURING the past year it has seemed proper to talk somewhat in these pages about photographic rights, and this year, for variety sake, in response to the editor's request to write about something, it may not seem out of place to write a little about their duties. Although there is a large class of readers who will consider any photographic writing that does not describe a process or contain a formula as labor wasted, perhaps a few may find some suggestions therein of enough value to merit a more tolerant judgment.

In photography, as in all other conditions and occupations of life, our rights and our duties are equal; neither can exist alone, and the one is always the exact measure of the other.

Our right to respect from others is only equal to our duty of respecting them. Our right to an adequate reward for our labor is directly proportioned to our duty of rendering faithful and effective service.

Our right to an honorable position in society is correctly measured by our ever present duty of being beneficial to society.

And it may be taken as an equally exact measure, that he who is indifferent to maintaining his rights will be equally lax in the performance of his duties.

All the honor and dignity due to any man's work in the world comes from the moral quality he puts into that work, and it is the misfortune of photography that it has been too much regarded as having no moral quality, and photographers as having no especial moral relation to the social world.

The labors and productions of photographers have been considered too much as a sort of ornamental fringe on the world's work instead of an integral part of the world's progression. Photography is considered a sort of neutral occupation, a pleasant amusement for amateurs, and an idle preference in the mode of money-getting to its professional followers; as indifferent and colorless to moral quality as making wax-flowers or ornamental needlework.

I believe this is a vital mistake that will, so long as it continues, greatly hinder the best progress of the art, and greatly retard the achievement of its noblest possibilities.

If with my humble labors I can aid in the slightest degree to lessen this impression, or with my feeble words help to stimulate even one of the many thousands of active spirits engaged in photography, to more truly appreciate his relations to the highest artistic effort, or the most earnest social endeavors tending toward that universal and eternal good for which humanity is striving, I shall be more than repaid.

These words will doubtless be considered the language of grandiloquent exaggeration by those who have always held a photographic gallery as something akin to a toy shop, and the photographer as standing in the social scale about level with milliners, hairdressers, and other such ministrants to fashionable follies. But in these articles it shall be my endeavor, I hope not entirely in vain, to show that portrait photography deserves a higher estimate for better purposes than merely gratifying the passing whims of fashion, or serving the transient demands of a fickle public taste, although it is through such channels it must work to reach its higher destiny.

If I have started on a higher key than I can carry through the tune, the failure will be my fault, and not from any want of power in the theme itself. So all I ask is that you respect the theme and the intention if you cannot their exponent.

NEW YORK, February 5th, 1877.

#### CARBON PHOTOGRAPHY.

PROCESSES WORKED AND PERFECTED BY AD. BRAUN & Co.

WE offer to the photographic public a simple and practical description of the different operations constituting the carbon process, as used in our ateliers, after thirteen years' experience.

This treatise, which we have endeavored to make very explicit, will contribute, we hope, to the spread and adoption of a process which offers to photographers so many important advantages.

The inalterability, the artistic aspect of carbon photography, the simplicity of its manipulations (outside of the manufacture of the prepared paper), will cause this beautiful process to be used in all photographic establishments in the near future.

We use daily in our establishments about twenty-five rolls of 4 metres by 85 centimetres (157 inches by 33½ inches). We are prepared to deliver to the trade as many as one thousand rolls per day. This proves that we have surmounted many difficulties to make this process very practical.

It is the result of all these efforts and of a long experience that we offer, and we do it with a confidence given to us by the favor which the public accords to the products of our house.

#### INTRODUCTION.

The carbon process has for basis the property possessed by gelatin mixed with a salt of chrome (such as the bichromate of potash) of becoming insoluble when acted on by light.

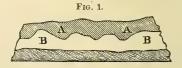
If, therefore, coloring matters are incorporated with this gelatin, they will be retained, after exposure to the light, by the portions of the gelatin which have become insoluble, or will leave their support together with the parts that have remained soluble, accordingly as they have been differently impressioned by the light.

The gelatin mixed with coloring matter is spread upon a paper support; in this state it is not sensitive to light, and can be preserved for an indefinite length of time. To make it sensitive, it suffices to impregnate it with a solution of bichromate of potash.

In the sensitized state the paper thus prepared cannot be kept so long; it is necessary, therefore, to only prepare the quantity we wish to use.

The image given by the exposure is hardly visible. It is developed by washing the soluble portions in warm water, after having placed it on a new support.

To better describe this operation, we will trace an enlarged section of this pigmented paper after exposure. The gelatin which has been made insoluble is at A A, it is the image; B B is the coating that has remained soluble. If, therefore, we were to immediately wash the paper in warm water, the gelatin which has remained soluble would in dissolving carry away with it the image.



It is, therefore, necessary that this image, which comprises the insoluble portions, should be placed on a support before proceeding to the washing. The pellicle at-

taches itself to this new support, and abandons in the washing the soluble gelatin and the primitive paper.

The image is developed.

This image by this first transfer is naturally reversed. It is necessary, if a reverse negative has not been used, to make a second and final transfer.

The brilliant appearance of the print depends on the surface of the support which has served for the washing. This support must be chosen in accordance with our desire to obtain a print more or less brilliant, or even mat.

All these different transfer papers are prepared and furnished by our house.

They consist of:

1st. Papers for direct transfer (prints obtained with reversed negatives).

2d. Temporary paper supports (caoutchouc and waxed papers) for direct negatives, the prints of which are to be transferred to

3d. Final papers.

After this rapid summary of the general principles of carbon printing, we will successively examine the different operations of the process that we follow in our establishment, and which consist of:

- I. Sensitizing and drying.
- II. Exposure to light.
- III. Transfer, direct and temporary.
- IV. Washing.
- V. Final transfer from the temporary support.

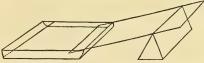
VI. Varnishing.

I.

#### Sensitizing and Drying.

Immerse the sheet of prepared paper in a filtered bath of a solution of bichromate of potash contained in a porcelain dish. Allow it to remain until the pigmented surface is softened, withdraw it, and place it, the gelatin underneath, upon a glass plate slightly inclined on the dish (Fig. 2).





Pass a caoutchouc squeegee over the back

of the gelatinized sheet so as to remove the excess of bichromate solution, which will flow into the dish, then remove the sheet and suspend it by wooden clamps upon a thin cord stretched for the purpose.

In very dry weather it becomes necessary to place at the lower extremity of the sheet a strip of light wood, so as to prevent the curling of the sheet, which in drying would break.

The proportions of the bichromate bath may vary according to the degree of sensitiveness which it is desirable to give to the paper. A weak bath gives a less sensitive paper, but the prints of which give more depth. A strong bath, on the contrary, produces greater sensitiveness but less vigor.

These effects are produced within an average of from four to five per cent. of bichromate.

The sensitizer should have an alkaline tendency, acid in the bath being always injurious.

The bath should therefore be composed as follows:

Water, . . . 1 litre, 1 qt. Bichromate, . . . 50 grammes, 13 drs. Ammonia of commerce, 10 grammes, 154 grs.

Up to the present time the paper is not sensitive even after its immersion in the bichromate bath. This operation may, therefore, be done in daylight. A necessary precaution is to perform this operation in a cool place, especially in summer, in order to avoid the too great softening of the gelatin coating. The temperature of the room should not exceed 15° Centigrade (59° Fahr.).

The manner of drying exercises also an influence on the sensibility of the paper, and should be done regularly and, as far as possible, in six or eight hours, in a dry place, well ventilated, at an average temperature of from 10° to 20° Centigrade (50° to 68° Fahr.) at most, and in complete obscurity.

II.

#### Exposure to Light.

The time of exposure appears at first to offer great difficulties to the operator, for the appearance of the prints can only be judged after the washing; notwithstand-

ing that, a little practice and the aid of our photometer, will soon enable one to work with absolute certainty.

The paper should be dry enough to be slightly brittle.

Printing may be done in the sun or in the shade, observing however that, contrary to what takes place with albumenized paper, carbon prints made in the sun are more vigorous than those that have been exposed in the shade.

To judge of the time of exposure it is necessary to observe:

The strength of the cliche; The condition of the light;

The sensitiveness of the paper.

To obtain the greatest amount of vigor, the paper should be sensitized in a weak bath and printed in the sun.

In the contrary case, a stronger bath should be used and the printing done in the shade.

It is absolutely necessary that clichés used in carbon printing should be surrounded by opaque borders.

(To be continued.)

#### Mr. Frank Rowell on Carbon again.

FRIEND WILSON: In your reply to Mr. Hough's letter in the February number of the Philadelphia Photographer, you say you "admitted Mr. Rowell's opinion on carbon work." Now I do not know that I gave an opinion at all. What I have ever said I have backed up by work, and am still working the carbon process summer and winter. and do not find any more trouble in handling carbon printing in hot weather than we do silver at the same temperature. I do not wish to discuss the merits of Mr. Lambert's patents, or his manner of doing business. He must take care of his own. I will say that I was disappointed in the man. Before I met him I was not pleased with his way of placing himself before the public, etc. After working with him a number of days I found him posted in all that he claimed, and a very skilful workman and a gentleman. Had you met him under like conditions you would say the same of him. Now allow me to say this: If I had to make a choice, either change my business or go back to silver printing for my enlargements, copies, or any work that I say to my patrons is permanent and that I am giving them an equivalent for their money, I would make a change at once. Now a word to my brother photographers. If your experience is like my own you will meet any number of people who come to sit to you for a negative. They are to have a crayon portrait and the artist wants an outline. They do not want a photograph, they fade or turn yellow, and a free-hand drawing can be had (life size) for twenty-five dollars. They may not be quite as good a likeness as a photograph, but it is permanent. That is about the kind of talk we hear in Boston.

What I have been trying for years to do is to show work that has all the good points of a photograph and the permanency of a crayon drawing, or a painting in oil colors. When we all show the kind of work mentioned photography will have taken a long step from where it is now, and our patrons will not say "Yes, it is beautiful, but they will fade in time."

Now a word about carbon work in hot weather. In the hottest weather of the last two years, besides our own portrait work, we have done two jobs for book illustrations, one of seven thousand and one of three thousand prints, and the failures were not three per cent. Would you have made less failures in silver than we did in carbon? In dull, dark weather we have printed twenty prints from one negative, while in silver the most we could have done would have been four or five prints.

In my opinion the man or boy who has an opportunity to practice carbon printing, and neglects to do so, stands in his own light, and fearfully so, too.

In my opinion, the photographer who makes large work from life or copies, finishing the same in crayon or India-ink, and does not print the same in carbon, makes the worst mistake he ever made if he intends to do a portrait business for the next ten years. The opinions expressed are not spasmodic or brought on by Mr. Lambert or any other parties, but from years of study and experiment.

I bought Mr. Lambert's patents, and while he was at our place of business I

learned enough to pay the license fee if the patents are not worth the paper they are written upon. To meet a man who has struggled through the same difficulties you have had, and exchange thoughts and ideas, is often meat and drink to a hungry mind. For one, I am satisfied with the amount received.

In conclusion, allow me to say I hope Mr. Hough and his printers will take a different view of the mechanical part of carbon printing. When they understand it one-half as well as they do silver printing, they will not wait for any one to start a large or small establishment for carbon printing, but take the whole matter into their own hands.

Asking only for justice,

I am, very truly yours,

FRANK ROWELL.

Boston, Feb. 5th, 1877.

#### CARBON POINTS.

THE VALIDITY OF THE CARBON PATENTS.

In confirming my letter of to-day, I beg to be excused for not giving you beforehand more complete details on the Swan patent. Still, I hope that those you find below will not come too late.

- 1. The first claim of Swan's patent reads as follows:
- "I claim: First, the preparation and use of colored gelatinous tissues, in the manner and for the purpose above described."

Now, it is a fact well known to every one acquainted with the history of carbon printing, that such tissues had been prepared long before Swan even thought of this process; for instance, by Poitevin in 1855, by Thomas Sutton in 1857, by Testud de Beauregard in the same year, and by many others. It is true that these investigators operated with tissues to which the bichromate of potash had been applied at once, i. e., simultaneously with the pigment and gelatin; but it is also worthy to be mentioned that Mr. Blair, of Perth, previously to Swan, manipulated in the manner now generally adopted, i. e., by immersing the gelatinous paper in a solution of the bichromate. Hence, the claim of Swan for the exclusive preparation of colored gelatinous tissues becomes invalid.

- 2. The second claim reads thus:
- "I claim: Secondly, the mounting of undeveloped prints, obtained by the use of colored gelatinous tissues, in the manner and for the purpose above described."

This claim refers to the transferring of the pigment print to another surface, such as paper coated with a solution of indiarubber, or in case the support is to be permanent on paper prepared with albumen This is what we call carbon or gelatin. printing by single transfer. But transferred carbon prints had been produced by Mr. W. H. Davies, of Edinburgh, as early as 1862 (vide Wharton Simpson, On the Production of Photographs in Pigments, page 40), who furthermore, in July, 1864, gave full details of his mode of proceeding, exactly similar to that followed at the present moment. Whether or not the substance employed as the medium of attachment to the permanent support is the one employed nowadays, is of little consequence, for a hundred different compositions will answer just as well, and the principle remains the same. And this principle has been discovered by Mr. Davies and not by Mr. Swan. "How often has it been found in connection with photography, that a process or an improvement has been suggested, and details freely given by an intelligent and unselfish experimentalist, which have attracted but little notice at the time, but which, after the lapse of months, or even years, has been rediscovered by some brilliant individual, and heralded forth with a grand flourish of trumpets as something quite new?" So in the Philadelphia Photographer, in an article published in vol. 8, page 66, by Davies, describes the preparation of the pigment paper, the sensitizing, the transfer for development, in an exceedingly clear and agreeable manner, and we must confess that his description is one of the best we ever read.

We must here insert that Swan filed a petition for his invention in the Patent Office of Great Britain, February 29th, 1864. Letters-patent were sealed August 27th of the same year. The American patent, however, bears the date of January 22d, 1867.

Is this patent valid or not? According to section 5 of the United States Patent Law, which reads thus, it is not.

"If it appears that the inventor, at the time of making his application, believes himself to be the first inventor or discoverer, a patent will not be refused on account of the invention or discovery, or any part thereof, having been known or used in any foreign country before his invention or discovery thereof; if not appearing that the same or any substantial part thereof has before been patented or described in any printed publication."

Now, we know that the invention of Davies was published in July, 1864, that is before the specification of Swan had been sealed or enrolled in the British Patent Office, and within the meaning of the acts of Congress, an invention is not "patented" in England until the specification is enrolled. The enrolled specification takes effect only from the date of its enrolment, and not from the date of the provisional specification (vide Whitman, Patent Laws and Practice of obtaining Letters-Patent, 1871, page 254). That is to say, the publication of Davies was prior in point of time to the one of Swan; the "invention" of the latter only dating from the time of the enrolment of the English specification, and this we believe to be sufficient to defeat the American patent.

Besides, with regard to the double transfer it is not necessary at all, as prints may be obtained in the right position by employing reversed negatives, which are very easily produced,\* and this in fact is generally being done in the largest establishments where carbon prints are being made, namely, at Messrs. Adolphe Braun & Co., in Dornach, Alsace.

ADOLPHE OTT,

22 First Avenue, New York. February 15th, 1877.

#### A LETTER FROM MR. GENTILE.

Mr. C. Gentile, of Chicago, proves to be one of the most enthusiastic of carbon workers, and writes us, under date of January 27th and February 9th, as follows: "In

this month's number of the Bulletin I see that M. Lambert says that I have written you, together with others, regarding his process, and that you had not published the same. He is in error. He expected that I would write you on the subject, but as I forgot it, I consider this explanation due you. I can safely assert that in the hands of an expert operator of tact and skill, with working rooms and every appliance necessary, that finer work may be produced by carbon than can possibly be effected by the silver process. Of course, beginners will make many mistakes, and I have no doubt that several who have purchased the process without proper and thorough instructions, as I know some have done, are disgusted with it. It needs patience and practice, like everything else, to succeed. I had a good many failures before I succeeded. In your February number, page 35, in the paragraph headed 'Lambert Lingerie' you say: 'We have yet no offer to make a Lambertype picture for our magazine; there seems to be a fear to undertake it-summer cometh.' Now, if the terms can be made satisfactory, I am willing to undertake the task of providing your magazine with a series of carbon pictures for one edition, and will furnish you either portraits, landscapes, or a composition. For the latter I will give you a copy of my group of General Sheridan and staff, which is in carbon. You are at perfect liberty to publish my letter or letters. I consider you have a just right to your convictions with regard to the carbon process; perhaps, we carbon enthusiasts are rather too much inclined to see everything too much couleur de rose, and I think your advice will make us go slower and surer. I do not intend to sell carbon prints at the same price as silver prints, at all events at present. I have not fixed up a proper room for working it, and have devoted what time I have had personally to spare, with the aid of a young lady, to printing in carbon for my compositions, of which I had made three in carbon. I send you some examples of my work, including a transparency made by the red tissue for making negatives from, I imagine that ere many months longer, many photographers will be working it successfully, or else give it up. I am sure of

<sup>\*</sup> Vide Photographie au Charbon. Procédés exploités et perfectionnés par Ad. Braun & Cie., Paris, 3 Boulevard des Capucines.

succeeding with patience. Most of the pictures that are mounted that I send, are made on ground-glass, matted surface and burnished, which I consider gives gloss enough.

"To get the full glace, you have to finish on polished plate, which, to my taste and opinion, is unartistic and too shiny. I shall be happy to answer you any questions you may wish to ask as far as I am able."

Mr. Gentile accompanies his letter by some very excellent examples of carbon printing, the best we have seen by any American worker of the Lambert process so far, and we are sure that if there is success in the matter, that he will get it out, as he seems determined to work persistently at it. We have accepted his offer to make a picture for our magazine, and in due course our readers shall have it.

#### EDITOR PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: Will you please give space to the following in your valuable journal, so that those that are not licensees of the Lambert processes may see and understand that the supposition on your part, that we are afraid to take up your challenge to print a picture for the illustration of the Philadelphia Photographer, is not the reason your offer was not responded to. It is not want of ability to make the pictures, but want of the proper arrangements at present to turn out a large quantity in a day. It is not to be supposed that if a photographer wishes to learn a new process of that kind, with a view of its ultimate inroduction in his gallery, he would commence by making arrangements to turn out a thousand prints a day, and then learn the process. It is more rational to suppose that he would first try to master the difficulties of said process, and then, after he had found what was wanted for his special purposes, would arrange everything according to the extent of his business. The exhibition at Messrs. Anthony & Co.'s has proved conclusively that pictures equal to silver prints can be made in carbon; and if we could to-day place the productions of silver printing, made five months after its introduction, side by side with the prints by the Lambert process, I do not think that it would take long to decide which of the two ways was to be chosen. Carbon printing by the Lambert process is now equal to silver printing, and no doubt can and will be improved upon yet.

If you were to offer the same inducements for a silver print illustration of your journal that you made for a carbon print, I am convinced the applications would be very few, inasmuch as, as a rule, photographers who have any kind of a business do not like to work for glory merely, and for the purpose of trying to convince a few skeptics, who, it seems, do not wish to be convinced.

The above are my reasons for not having accepted your offer, and no doubt are shared by most if not all the licensees; but at any time when you are in New York, and feel disposed to take a half hour's sail down the Bay to Staten Island, and give me a call, I shall be most happy to show you that I can make prints successfully by the Lambert process, which is gradually being substituted for silver printing in my gallery, and is preferred by all who see my specimens.

I trust you will not consider this communication as coming from an obscure corner of our globe, and on that account have it shelved or cremated, and that having been a subscriber to your journal ever since its publication, you will grant me the privilege of saying these few words in defence of our side of the story.

Respectfully yours,

J. LOEFFLER.

HISTORY AND HANDBOOK OF PHOTOGRAPHY.—A new work soon to be issued by Scovill Manufacturing Company, New York. This is the translation from the French of Gaston Tissandier, that was published in London last year by Messrs. Sampson Low & Co. It is a very excellent work, and we have no doubt its popularity will justify the enterprise of the American publishers. We shall have a full supply of the book on sale. Price, \$2.50.

THE PHOTO-ENGRAVING COMPANY, New York, is demonstrating its capacity to execute large plates as well as small. We have received a reproduction of a steel engraving, 11 x 15 inches, which is so perfect in every line and detail, that no one but an expert could tell that it was not from an original plate. See advertisement of the "Art Album."

# Editor's Table.

PICTURES RECEIVED .- Promenades from Mr. E. D. Ormsby, Chicago, who seems to be very successful with this style. A young miss in white and a little girl at the spring are quite effective. Cabinets from Messrs. G. M. Groh & Brother, Sheboygan, Wis.; these were made in violet light, produced by using violet screens. The lighting is excellent, and speaks well for Mr. Groh's method. He has sent us samples of the tissue-paper he uses for screens. An explanatory letter from him may be found on another page. Cabinets from Mr. L. A. Atwood, Burlington, Vt. These are twelve excellent photographs, possessing chemical and artistic qualities that are highly creditable. Mr. Atwood has our thanks for these fine examples of his artistic skill. Cabinets from Mr. Gentile, Chicago, in chromotype and silver printing. His composition groups are finely executed; that of General Sheridan and staff, and one or two others, are very successful efforts in the way of grouping. Cards from Messrs. G. Weingarth, Shelbyville, Ind., and R. A. Hickox, Emporia, Kansas. A chromotype carbon print from Mr. A. M. Allen, Pottsville, Pa. It is of 4 x 4 size, and excellent in every respect. It is really one of the best small prints we have ever seen by this process.

Fires.—Mr. A. Bogardus, of New York, writes us under date of February 5th: "Fire has destroyed my dark-room and contents, also my skylight, furniture, and all. It occurred last Thursday evening. It will take a week or ten days to get in order again. I am insured, and will push things as fast as possible, but at best will lose ten days or two weeks." We are very sorry to hear of our friend's misfortune, but congratulate him that it is only an interruption of business. We are glad to hear his courage is good, and have no doubt he will soon recover from this scorching.

A local paper from Hillsdale, Mich., reports a "big blaze," in which the gallery of Messrs. Carson & Graham, photographers, of that place, was totally destroyed. This must have been a severe loss, and we shall be glad to hear that they have located again, with a prospect of retaining their former business.

MR. Well G. Singhi is a genius, as well as a man of nerve. As we write, there looks up from our table a most excruciating picture. It is a three-inch head on a cabinet card, and one quarter of the length of the face is an open mouth, presenting a very taking countenance, but we

are convinced it is not an effort after oysters or baked beans, but a vocal effort of the highest order, as on the card is the inscription "SING-HI." We take up this card and have to laugh outright, for there is another, presenting one of the most mirthful faces we ever saw. We should call them Comedy and Opera. The ability to preserve such wonderful facial expressions immovable for a length of time sufficient to secure a well-timed negative of this size, is certainly remarkable. Mr. Singhi makes a strong bid for cheerfulness in these very comical pictures of himself.

ONE of the best evidences we have that photographers are wide awake, are the notices they receive in the local papers. The past month has been especially prolific in these, or a greater number than usual have found their way to our office. Among those thus favored are the names of Major Marks, Austin, Texas; Alfred Freeman, Dallas, Texas; E. L. Eaton and Frank F. Currier, Omaha, Neb.; T. B. Wilson, Washington, Ill., and F. L. Steuber, Bethlehem, Pa. We are glad to see these evidences of their popularity, and hope they may all continue to merit them. We would be glad to see samples of some of the excellent pictures referred to.

A New Firm.—Mr. William Curtis Taylor, of this city, has recently associated with himself Mr. S. Broadbent, under the firm of Broadbent & Taylor. Mr. Broadbent was the original proprietor of the gallery at 914 Chestnut Street, which was afterwards under the ownership of Messrs. Wenderoth, Taylor & Brown, but the other partners having withdrawn, Mr. Taylor now reinstates Mr. Broadbent as head of the house once more. The gallery has an excellent reputation, and we predict for the new firm an abundant success.

BRITISH JOURNAL PHOTOGRAPHIC ALMANAC—Since our last we have received this excellent annual, and find it replete with interesting and valuable articles on almost every subject relating to photography. We hope to make some extracts from it when our columns are less crowded.

WE are unusually crowded this month, and a number of communications are obliged to lay over. Among them, are several on the carbon question. Correspondents will please bear with us and all shall appear in time.



The publishers have a great many good things in anticipation for the year 1877, which they think will render their magazine more beautiful and more useful than ever before; and while they maintain that the beautiful example of photography, which accompanies each issue, is alone worth the subscription price, still more and more effort will be made to make the reading matter everything that it ought to be. Our correspondents from all the leading centres abroad will keep our readers posted on all matters of interest in their several sections, while our unrivalled staff at home will look diligently after your interests here. To make the Philadelphia Photographer the best practical helper which can possibly be obtained, is the aim and earnest desire of its publishers.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us new ones, the following

For every new subscriber, for one year, \$1, payable in any of our publications, books, or, if preferred, \$1

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# SECOND

# Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARV-INGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

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55. 2330—Egyptian Camel Saddles.
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57. 2165—Mammoth Japanese Vase.
58. 2017—Japanese Mirror and Bronzes.
59. 2170—Porcelain Vases, Japanese section.
60. 2175—Porcelain Ware, Japanese court.
61. 2015—Porcelain Ware, Japanese court.
62. 2167—Japanese Bronze and Silver Birds.
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66. 2172—Japanese Toys 1. 2120—The Main Building "through the Trees."
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11. 2218—Porcelain Fireplace and Candelabra, Swedish section.

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13. 2214—Shell-work from the Bahama Islands.

14. 2215—Curiosities from the Gold Coast.

15. 2045—Doulton Pottery.

16. 2075—Daniell's China Court.

18. 2084—Daniell's China Court.

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20. 2301—Brown, Westhead, Moore & Co.'s exhibit of Terra-cotta.

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27. 2189—Brazilian Court. 11. 2218-Porcelain Fireplace and Candelabra, Swedish 34. 2193—Japanese Bronze Birds.
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30. 2283—Netherlands Court.
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33. 2366—Ornamental Swiss Carvings.
44. 2367—Swiss Carvings Cattle Piace. 35. 2000 — West Carvings, Cattle Piece. 35. 2000 — Mexican section, Main Building. 36. 2006 — Mexican Silver Cake. Valued at \$72,000. 37. 1887-The Mexican Court. 38. 2062—Porcelain Ware, German section. 39. 1827—German Bronzes. 40. 2050—Austrian section, Main Building.
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The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy Wilson's Lantern Journeys, with which they will be published in a future edition.

The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.-Edw. L. Wilson and W. Irving Adams, Proprietors.

We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

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98. Statuary—your choice of subject. 99. Statuary—your choice of subject. 100. 2064—View from the Reservoir.

49. 2127-Russian section, Main Building.

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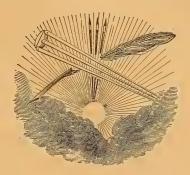
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## DEVOTED TO PHOTOGRAPHY.

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EDITED BY EDWARD L. WILSON.

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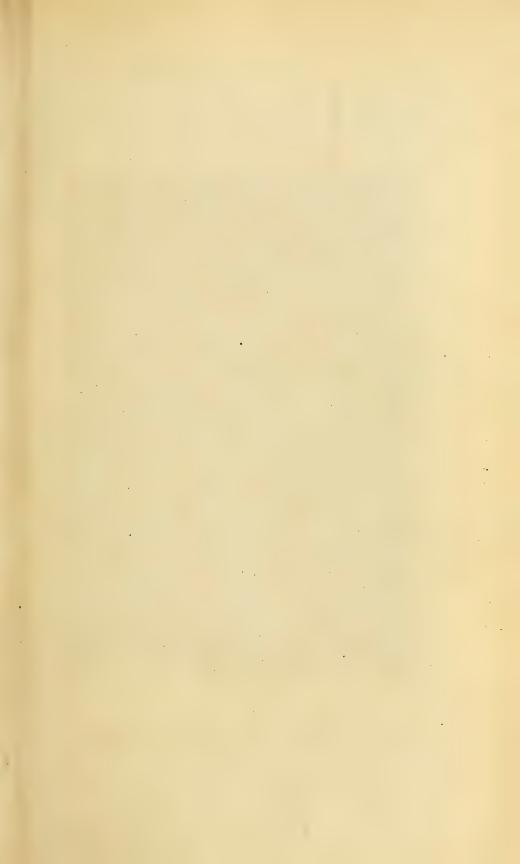
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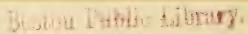
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PHILADELPHIA.

"IN YE OLDEN DAYS."

# Philadelphia Photographer.

Vol. XIV.

#### APRIL, 1877.

No. 160.

Entered according to Act of Congress, in the year 1877,
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#### FIRE INSURANCE.

THERE has probably been no question outside of the routine of gallery work that has been more perplexing to photographers than that of fire insurance. Photographic galleries have been placed among the special hazards, and their dangerous character magnified till one would suppose, from the arguments of an insurance agent, that it might be as safe to sojourn in a powder mill as in one of those "dag're'type saloons."

The aforesaid agent is always very wise, and prates about explosive acids, ether, guncotton, alcohol, glycerin, etc., as a reason why the rates should be at the exorbitant figure which he claims. Now, it should be known among insurance men, as well as among photographers themselves, that no explosive materials are used in photography that are half as dangerous as the kerosene oil that makes such havoc among the innocent and helpless throughout our country every year. Among the fires that occur in photographic galleries, many of them originate in another part of the building; but the gallery is held responsible, and whenever one is opened in a building where there has been none before, the rate of insurance on the whole property is increased from one to one and a half per cent.

Photographers have always felt that this was unjust, and Mrs. Lockwood's plan for an Insurance League within the National

Photographic Association was but an expression of the feeling which exercised the whole fraternity, and sought some means of relief, though all who felt the necessity may not have been satisfied that her plan was the best, and yet no one attempted to offer a better one. It is true that the materials used by photographers may seem to make the risk greater; but that it is so is disproved by the facts, which show but a small number of galleries burned as compared with other kinds of business. the number would be much smaller were they entirely isolated from their usual surroundings. Now we have no remedy to suggest for the insurance evil, different from that already proposed, other than to fight out on the same line under which we have all suffered; but we will give some figures that may be of service to photographers in showing that photographic galleries are not such dangerous places in comparison with many other "risks" as insurance men would have us believe.

We print below a copy of a circular, compiled from *The Chronicle*, an insurance journal published in New York, from which it will be seen that there are but three others among the special hazards that show a less number burned than photographic galleries.

Great Fires in 1876.—Number of fires, in 1876, 9301; aggregate loss by fire in 1876, \$73,775,800. Among the special

hazards burned in the United States note the following:

Bakeries, 49	Flouring mills, . 77
Blacksmith shops, 47	Hotels, 318
Breweries, 23	Machine shops, . 53
Slaughter houses, 49	Paper mills, 23
Carpenter shops, . 78	Planing and saw
Carriage factories, 49	mills, 263
Churches, 66	Railroad depots, . 53
Theatres, opera	Steamboats, 13.
houses and pub-	Woollen mills, . 30
lie halls, 64	Oil refineries, stores,
Drug stores, 145	and tanks, 47
Furniture, and	Photographic gal-
sash and blind	leries, 37
factories, 111	

#### GERMAN CORRESPONDENCE.

A Non patented Carbon Process—The Centennial Awards—Carbon Difficulties—A
New Patent for Mr. Lambert.

BERLIN, March 1st, 1877.

In America there is at present a lively interest prevailing in regard to the carbon process, yet this process is debarred from general use by existing patents, not taking into account the hindrance offered by the climate in summer. I think, therefore, I will be doing the American photographer a special favor, by informing him of a process (not patented) for producing pigment pictures, a description of which was first given by Mr. Friedlein, at Munich,\* who has prepared a pigment tissue which he has brought into trade. For a sensitizing bath he uses,

Bichromate of Potassium, 30 parts. Water, . . . . 800 "Carbolic Acid, . . . . 1 "

For transferring and developing, Mr. Friedlein takes, if a single transfer only is necessary, a separately prepared rosin-paper.

First, Dissolve 30 parts rosin or white shellac in 100 parts strong alcohol, and filter.

Second, Dissolve 30 parts gelatin in 500 parts warm water, and filter. To the clear solution add 5 parts glycerin.

Mix both solutions, first and second, when warm, and keep it in well-corked bottles; put a coating of the warm solution on Rives's paper, not too thick, and hang it up for drying. This is the rosin-paper, not patented as yet.

If you wish to develop a sensitized carbon tissue on this paper, you have to dip it and also the tissue in water; take both out, and press them together with the squeegee; afterwards press them a short time between blotting-paper.

They are then to be developed by means of warm water. The developed pictures must be dressed (tanned), and are then ready. They are inverted in position, and without gloss. If you desire to have them glossy, operate in the following manner:

Dissolve 80 parts borax in 1500 parts of water, and add afterward to the boiling solution 300 parts of shellac. Boil several hours till the lac is entirely dissolved. Afterwards add to 4 parts of the cold solution 1 part alcohol, and filter. A little bit of carmine added to the solution will give it a nice color.

As soon as the picture is rinsed with cold water, the shellac solution is to be poured on in a similar manner to collodion; then dry the picture, after which it shows a very fine albumen gloss. For a double transfer, Friedlein recommends only glass. He does not think much of a double transfer with flexible support. He pours over the glass plates a solution of 30 parts gum dammar in 400 parts benzole. Shake the gum at first, in a bottle, with a little benzole, whereby it receives a milky color; then add the other parts of benzole, and filter through paper.

This mixture is poured over the plates like collodion, after which let them dry; then the sensitized tissue, under water, is to be brought in contact with the plate, and pressed on; afterwards developed.

The developed picture, in a wet condition, is to be pressed together with the above-mentioned rosin-paper, exactly as in the English process. When dry, the picture springs off itself.

Should the pictures remain on the glass, then a glass without any coating is to be used, on which the pigment coating sticks

<sup>\*</sup> See Die Praxis des Pigmentdrucks, by E. Friedlein. Munich: Published by Knorr & Hirth.

very well. The picture is to be pressed on it, and developed.

You see by this, that it is possible to make carbon pictures in another way than the patented one, and whoever has tried his hand in this manner, will soon find further means.

I have just received No. 1 of the St. Louis Practical Photographer, and find therein, to my great astonishment, an article by Mr. Lambert, who is in a great rage concerning my stated opinion that the wellknown carbon process of Swan, Johnson, and Sawyer is not patented. He claims to have in his possession the patents of Swan's, Johnson's, and Sawyer's processes. Now, if that is in truth the case, then Mr. Lambert has no reason at all to become so excited. much less to defame me as he has done. It is an untruth for him to say that I left anything incomplete in Philadelphia, or which had afterwards to be redone, or at least finished by another committee. I did not leave Philadelphia until the Group XXVII, to which I belonged, had finished their work, and I was the last juror of this group who left Philadelphia. That afterwards there was formed a legal wild committee, consisting of two Americans and one Dutchman (Hollander), which could deal out seventy-five medals more than the Group XXVII had proposed for paintings and sculpture; and, on the other hand, mark out nineteen medals for photographs proposed by Professor Draper, Mr. Dardell, and myself, is an arbitrary act, and a shame to the Centennial Commission which allowed such a thing. The European jurors had publicly protested against this act, and how just the protest was, is shown by the circumstance that afterwards the wild committee found it necessary to ratify those photograph medals which they had marked out. That is all that has been redone by another committee, which may be indebted to Mr. Lambert for their glorification.

Then Mr. Lambert also finds fault in the same article, that I received for my work as judge, like all the other judges, \$1000 emolument; then I must make the remark that he probably would not be satisfied with \$1000, but take ten or twenty times more (coming out of the pockets of American

photographers) when he should leave America.

If Mr. Lambert indeed has found out some means to apply the carbon process even in the hottest temperature of summer, that may be very well; but I don't believe him! I have used the carbon process when nobody knew anything of a Lambert. I have worked after Johnson's and Sawyer's directions with the best success. But it is a fact that in Europe in warm summers, even the Autotype Company at London, which works on a large scale, found dif-Mr. Sawyer himself found it necessary last summer to publish a series of precautionary measures, whereby he admitted that in summer faults occur very easily, especially in sensitizing and drying, on account of the solution of gelatin, and otherwise on account of the formation of a grain or network, which makes the pictures entirely useless. On the day that I met Mr. Lambert in New York, I came from Mr. Kurtz's, where I had produced a series of carbon prints with the best success. Mr. Lambert, probably, was not aware that I knew anything about carbon prints, and gave me an invitation to a lecture relative to the manner of making them, which would be to me nothing new, but wearisome, and therefore I did not feel inclined to accept his invitation.

In conclusion, Mr. Lambert, in his article, is trying to make a display of wit about my remark that in no country after Europe do I feel myself so much at home as in America, and says I ought to have excepted at least Siberia and Turkey. Then the opinion of Mr. Lambert is that Siberia lies in Europe! That is something new. I advise Mr. Lambert to have this invention patented. Probably he may make some money by it. If he is troubled with so many patents, one more would do him no harm.

If Mr. Lambert has differences with Mr. Wilson, the editor of this valuable journal, I have nothing to do with it. I write my letters for the advantage of the photographers, not in the interest of Mr. Wilson or Mr. Lambert.

Yours truly, Dr. H. Vogel.

#### FRENCH CORRESPONDENCE.

February Meeting of the Photographic Society of France—Report of the Commission on Violet Light—Violet Light for copying Old Pictures—A Novel Posing Chair—Award of the Great Silver Medal to Mons. Janssen—Braun's Manufacture of Carbon Tissue—Panoramic Lenses—Collodion as a Support for Carbon Proofs—A New Apparatus for Washing Prints.

THE Photographic Society assembled last Friday evening, the 2d instant. The meeting was very well attended. Since the last time I had the honor to speak with my American readers on the violet-colored glass for studios, the Photographic Society of France had chosen a commission to make experiments on that invention. Last Friday the commission made a report, which was not favorable to the inventor. rapidity of manipulation interests the whole photographic community, I think it would be well not to throw away this idea without due trial, and until a certitude exists that it is of no value. The experiments undertaken by the commission (I had the honor to be present) were made under unfavorable circumstances, the weather was very bad, dull, and cold; nevertheless, a greater rapidity was obtained than with white glass. But, according to many, this rapidity does not compensate for the disagreeable sensation experienced, and the cost of license to employ it. It is very curious to see the divergence of opinion which exists as to the merits of this invention; some say it is not worth the trial, others that they would not do without it on any condition whatever.

I see in the January Photographer that friend Gaffield intends to make a few experiments on bromide and iodide of silver under slips of violet-colored glass. If my friend would permit me to suggest another mode of operating than that he employed for the chloride of silver, I think he would obtain another result; it is to make a miniature studio, and glaze it with violet glass,\* in such a manner that the panes can be taken

out with ease, and replaced by white ones; the curtains the same, as it is by reflection that Mons. Scotellari says he obtains his effects. I firmly believe that if the violetcolored rays be found wanting in portraiture, it will become of great value in reproducing certain oil paintings, old engravings, and, above all, faded photographic pictures. As a proof, let one of my readers seek a very old and faded photographic portrait in which the whites (turned yellow) are prominent, and interpose between it and the light a pane of violet-colored glass; the portrait will then be seen to have the appearance of a newly toned print just turned out of the photographer's hands. I remember myself to have turned this to account some years hence. One of my friends asked me to reproduce a pencil drawing of his mother on her death-bed, sketched by a celebrated draughtsman; unhappily the artist had chosen a yellowish paper, and by the ordinary means it was impossible to get a negative. I then thought of Ducos du Huron's process, and put a colored glass in the lens, but without success. I then had the idea to reflect the colored light upon the object simply by interposing between it and the light a large pane of glass of a violetbluish color. I succeeded beyond my expectations, and had nearly forgotten the fact until it was brought to memory by the late experiments, which, let it be said, were not conducted to that end, but wholly to obtain negatives more rapidly in the sitting-room.

In visiting the sitting-room of one of the best photographers in this city, I saw a very novel posing chair, which I think would render service to some of the American photographers. It is made in the same form as the common music stool, but instead of the central screw it is placed upon a strong pivot; if it is found necessary to change the position of a lady, it can be done without asking her to rise by turning the stool a little. A kind of bolt is slipped into its socket, when the right position is found; this prevents the chair from moving during exposure. The stool is likewise furnished with a short back, on the top of which is a movable back, which can be pushed forward or drawn back by means of a screw; this keeps the loins of the sitter in a good

<sup>\*</sup> Mons. Scotellari says that, as pure violet glass does not exist in France, he is obliged to employ an alcoholic solution of a pure violet color instead of glass.

position. The artist has now but to occupy himself with the head-rest.

The Photographic Society of France awarded their great silver medal to Mons. Janssen, the celebrated astronomer, for the invention of the photographic revolver, and for the general progress which that savant had made in photographic astronomy. Mons. Janssen, in going forward to receive the medal, was unanimously applauded.

A very fine collection of carbon and fattyink proofs were presented by Mons. Braun. This gentleman has made great progress during the last few years in carbon printing, and has established a manufactory of carbon tissue, which bids fair to supersede the English-made tissue, which, up to the present, has nearly monopolized all the French trade.

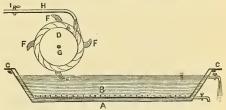
Mons. Prazmowski presented some very small and highly finished panoramic lenses, which were highly recommended by Mons. Janssen, he having employed some of them with success in his voyage for the observation of the transit of Venus.

Mons. Franck de Villecholle made a communication to the Society on the best support for a carbon proof, when the operator desired to remove said proof from glass. He said that gelatin was generally employed for that purpose, but it offered many inconveniences. He had succeeded much better by pouring collodion over the proof, which collodion had been previously toughened by dissolving in it a small quantity of castor oil. When the collodion is thoroughly dry, a knife is passed around the proof, which immediately rises from the glass; it can now be kept under a press or between the leaves of a book, in order to keep it flat.

Mons. Collet, of Cherbourg, presented a newapparatus, of which he said: "I thought proper to give the name of 'Laveuse hydraulique' to the machine now before you, because of the form of the hydraulic wheel which is the principal cause of movement. The principal advantages of this apparatus is to give a continual washing to photographic prints, in order to eliminate all the hyposulphite of soda which had been employed to dissolve the chloride of silver. It is a well-known fact that much valuable time is lost in the ordinary washing, and

often without good results; from twelve to fourteen hours are barely sufficient. On the other hand, proofs badly washed bear in their fibres a poison which destroys them sooner or later. With my apparatus the proofs are washed automatically, the water which cleanses gives the movement to the proofs, which are constantly changed from one place to another, and in one hour and a half a better result is obtained than by several hours with the ordinary system."

The apparatus presented to the Society resembled a very large round shower-bath tray in zinc, about a yard in diameter and six or seven inches in depth. A brass tap is placed near the bottom to empty the tray at will; another tap is soldered at about three inches from the top edge, which serves as an overflow. Into this tray another of nearly the same size is made to fit, so that about an inch separates it from the other in every direction when in its place. It is



supported on the under tray by means of a large flange, C. The bottom of the inner tray, B, is perforated with a great number of small holes. On one side of the tray an iron bearing is screwed, which supports a small overshot wheel, to which is attached four paddles a little curved at the ends. The wheel can be raised or lowered at will, so that the paddles may enter about two inches into the water.

It is now very easy to see how the apparatus is set to work. The tray is filled with water, the proofs to be washed are introduced, the tap, I, is opened, the water rushes out of tube, H, into the buckets of hydraulic wheel, D; this begins to turn upon its axis, G, and every now and then one of the four paddles, F, F, F, F, touches the water or some of the proofs in the tray; thus a circular current is established, the paddles doing the same office as the hand of the operator, viz., separating the proofs and changing the water. The latter entering

the inner tray, B, is obliged to pass through the holes at the botton, then to rise up the side to make its way out of the overflow tap; thus the water is continually changed, the proofs at the same time ever moving. I do not know whether this apparatus is patented or not; it is very easy to have made, and would be a very valuable acquirement to a photographic establishment.

> PROF. E. STEBBING. . February 6th, 1877.

### PHOTOGRAPHIC DUTIES.

3 PLACE BREDA,

BY E. K. HOUGH.

No. II.

ART AND RELIGION.

WHAT Christianity is to religion, photography is to art.

What Christian ministers are to the diffusion of truthful religious doctrine, photographic artists should be to the diffusion of truthful artistic knowledge.

The sincere Christian honors truth before all things; in its service no labor is too heavy, no sacrifice too great. He cannot rest, until truth is rescued from its base enemy, falsehood, and set pure and beautiful in the sight of men for honor and devotion.

So the true artist pursues beauty under all disguise, looks for it under all forms, and counts as pleasure the labor that separates it from its base surroundings, and sets it true and fair in the sight of men for admiration and esteem.

Worship of beauty is the religion of art. Worship of truth is the beauty of religion. Christianity shows the beautiful in truth. Photography shows truth in the beautiful.

In each the union of truth and beauty is more nearly perfect and complete than in any other form of religion or of art.

Facts and ideas can often be most effectively explained by analogy; and as the similes between Christianity and photography are so striking, I have thought it becoming to draw this parallel as the clearest and easiest method of expressing what I mean to assert and maintain.

But here, at starting, I wish to premise that, by so doing, I mean no disparagement to either religion or art; for although I have no intimate acquaintance with either, I have a profound respect for both, with an equally profound contempt for all arrogance and Pharisaism in either.

When Christianity first began its work in the world, it found long-established religions invested with all the reverence accorded to age and precedent, bearing powerful sway over the lives of men, claiming absolute authority, exacting implicit obedience, and receiving princely revenues; because Christianity exposed the falsehood of these religions, disputed their authority, humbled their pride, and diminished their revenues; they all became its deadly enemies.

Likewise when photography, like a new revelation, began its career in the world, it found many forms of art engaged in the representation and perpetuation of beautiful forms, all with more or less of truth, but also with much of falsehood. All artists, at first, admired the beauties of photography, and praised its truth, but when it began to dispute for precedence in the admiration and esteem of the people, becoming both jealous and alarmed, they commenced to decry its beauties, magnify its faults, ridicule its pretensions, and to utterly refuse it their countenance and support.

When Christianity came, the priests of the older religions would have none of it. They not only refused it admission to their temples and synagogues, and withheld the hand of brotherhood from all who believed and practiced it, but also decried and reviled them before the people.

So the old order of artists refused, and still refuse, to recognize the new art, as an art, or admit its products to their exhibitions or artistic competitions; refused, and still refuse, to call its practitioners artistic brethren; refused, and still refuse, to give it aid from their skill and experience, or any countenance from their authority.

Christianity, as a new religion, was compelled to gather its teachers from the humble ranks of laborers and fishermen; so likewise photography as a new art was compelled to draw its early workers from the shops and fields; ignorant and undisciplined, but eager and earnest men.

Before Christianity came, religion was kept in temples and sacred places for the favored few, a luxury that only the rich and powerful could afford.

So before photography came, works of art were the undisputed heritage of kings and nobles. Only the rich could afford its products in their homes, while their refining and harmonizing influences rarely reached to the poor and lowly.

When Christianity came, announcing a religion for the poorest and the lowest, showing as much earnest care for their present and future welfare as for the welfare of kings and princes, sore vanity and hurt pride prompted them to call it the religion of publicans, harlots, and beggars.

So when the art of photography came, taking just as much pains with the face of a peasant as the face of a lord, and tracing the humblest cottage with the same exquisite fidelity as the palace of a king, they called it vulgar, cheap, and inartistic.

And, finally, as in religion, "the stone which the builders rejected" came to be "the head of the corner," so the more ancient order of artists have been compelled to see the art they derided rapidly taking station among the foremost in the world for use and honor.

The ministers of Christianity are diffused over the whole earth, telling of God and truth to benighted savages in forests and deserts and the far isles of the sea, as well as in the luxurious homes of cultivated cities. Likewise photography has penetrated to the ends of the earth, teaching lessons of art in the language of beautiful forms, truthfully rendered, as well in the meanest homes as in the richest mansions.

Such being the honor and station of photography, what are the duties of its ministry?

NEW YORK, March, 1877.

# Anatomy, Phrenology, and Physiognomy,

And their Relations to Photography.

BY W. H. TIPTON.

No. 2.

As good clean manipulation and fine chemical effects are now the rule, progressive photographers will, whilst keeping up to the standard in these directions, seek out the weak points in their productions and strive to perfect them. Retouching is now practiced to such an extent, and in many cases carried so far, that those who would excel will be forced to recognize the application of these sciences to photography as necessary. A well-modelled face is beautifully posed and lighted, and, with clean and delicate manipulation, a proof from the negative reveals the beauties of the very soul. But the finish is not up to that degree that we have taught the public to expect, so the retoucher is called upon to supply this deficiency, and he does it; but, alas, he removes nearly every particle of character there was in that magnificent face! Do not understand me as opposed to judicious retouching, for I am not; but, on the contrary, think that there are but few negatives, if any, that cannot be improved and made to produce prints more truthful to their originals by pencilling properly done.

As there are qualities of heart and mind possessing certain forms that vary as much as the thoughts that spring from them, and as it is through these outward signs, by our knowledge of physiognomy and phrenology, that we get a glimpse of the emotional nature, it must be patent to all that our study of these sciences will result in the elevation of the art. It is here we must look for truth.

A photographic portrait made with a lens of sufficient focal length, properly posed, lighted, and manipulated, and retouched in strict accordance with the requirements of these sciences, is surely as truthful, and as worthy of a place among the fine art productions as a portrait in oil, notwithstanding the fact that most portrait painters claim to be able to demonstrate, in a few minutes, to the satisfaction of any one, that a photograph is incorrect in drawing. Suppose we grant this, does it prove that hand-painting is correct? Let the manufacturers of albumen paper give us a quality of paper that will not expand upon being immersed in water, or that will expand equally lengthwise and crosswise, and the "odds" will be on our side by a good bit. The photographer, to be able to excel, and to apply these sciences to his daily practice advantageously, should have taste to arrange and combine the details to produce a harmonious and pleasing general effect; should have strength and accuracy of observation, a nice appreciation of forms and proportions, and ready artistic discernment. What nature has failed to supply may be acquired by patient study.

Physiognomy and phrenology are so closely connected that we cannot separate them, as an extraordinary development of a feature in the former may be corrected or balanced by an excessive development of an organ of the latter.

Physiognomy.-We associate a high forehead with intellectual power, and a receding one with the lack of it; therefore we should place the head of the latter in such a position that the deformity will be least striking, and give full value to the former. The square jaw, with its angles well defined, goes with the resolute and firm, and the rounded angles with the feminine nature. So we can by posing, lighting, and retouching, give value to, or take from, as we deem best. It is not unfrequently the case that a photograph is made of an effeminate nature, which, from improper posing and lighting, develops squareness of the jaw, which gives a stern expression; this not being desirable, we subdue it, knowing sternness not to be a characteristic of our subject. We associate short noses with concave line with childishness; long noses with melancholy, as such persons are said to "look down along their hoses;" upturned noses with impudence, they always have a kind of inquisitive, touch-me-not air; then one with a turn-up nose, and long from the lip out, finds it impossible to "keep out of other people's business." Straight noses of proper length go with well-balanced minds.

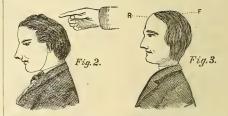
The photographer must, by properly handling his subject, either heighten the qualities or lessen them, as may be required.

Phrenology.—Phrenology is not so visible, but the natural language of organs must be attended to. Large self-esteem (Fig. 1) carries the head back, so as to give prominence to the organ. Humility, its opposite, the lack of self-esteem (Fig. 2), carries the head down. Firmness (Fig. 3 F), situated just forward of self-esteem, carries the head nearly the same; but seems to have more

foundation, for while the head of self-esteem would fall backward, the firm head balanced



by its reason (Fig. 3 R) sits firm. The head can be so placed as to give prominence to



other organs, but there are doubts whether the general public will recognize them as signs of character. We will not ask space for them here.

In a recent letter from a talented portrait painter and warm friend of the writer, now in Philadelphia, it is asserted that "the time will come when the artist must be both physiognomist and phrenologist to please the popular taste." The sooner photographers become convinced of this fact, the sooner will photography be accorded her just place within the realms of the fine arts beside her sisters, sculpture and painting. Were it not for the modesty of the artist referred to, I would give him full credit by naming him here, as I am indebted to him for many valuable suggestions which have induced me to carry out my intention to prepare these papers.

Now, since the writer has suggested the application of these sciences to photography, it is hoped by him that the matter may not rest where he has left off, but the topics be taken up and discussed by abler minds.

GETTYSBURG, PA.

A very full eatalogue of Scottish views, published by Mr. James Valentine, of Dundee, has been received. The sizes are imperial, cabinet, C. D. V., and stereo.

# SOME THINGS SEEN AND FELT.

BY I. B. WEBSTER.

"LOADS" of dirt have been removed, and the effect is most gratifying. In the February number I gave a view of things as they then appeared, and knowing what medicine would effect a radical cure I began by clearing out the cause. The root of the evil "walked out," having a pair of feet made for that purpose. A negative free from holes was a rare thing to see up to that time, and now a negative with holes is truly a rarity. The same bath solution is still in use, as is also the same camera, shields, etc. I wish I could exhibit the metamorphosis to photographers that persist in wallowing and slobbering through their work, slinging things about as a common laborer working on the street would do. I simply filtered my bath, wiped out my shields, and went to work according to my old and well-tried rule of "careful manipulations." Read my paper as it was published in the proceedings of the National Photographic Association at Philadelphia and Buffalo. I recommended certain ways for doing certain things, and I know that good results will follow always. For instance, during the past three years I have trusted others to prepare glass, supposing they would keep up my "tried plan," but rusty glass became the rule. Why, I could not tell until this present experience, and now I see it all quite plain. The rule that works well is this. Make a strong solution of concentrated lye, immerse the glass in it one at a time (I treat varnished negatives and new glass alike); leave them in the solution until they are clean; then, with a rag, tuft of cotton, or patch, wipe them (rub hard) all over both sides, and then wash the lye all off with water, after which immerse them in a dish containing commercial sulphuric acid (strength unimportant) where they ought to remain at least one whole day; take them from the acid singly; let them drip well; wash in water, and pass them into water where they will remain until you are ready to albumenize. Do not allow the glass to dry from the time it is first put into the lye until after it has

received the substratum of albumen. This is an important point.

I am working up to this routine, and my supply of rusty glass is diminishing rapidly, and I fail to get a "map of the world" on my negatives. By giving a little attention to this every day, it will be but a short time until you will find a large supply of good plates on hand ready for use. I use the white of one egg to from ten to twenty ounces water, and add a little iodide of potassium to clear it, and a few drops of ammonia to improve its keeping qualities. If the solution is too strong of egg the film of the negative will come out rough. Filter with care before using, and be careful in setting the plate away to dry, in order to prevent foreign matter from coming in contact with the albumen surface while wet. Above all things have your hands free from silver, soda, cyanide or other deleterious solutions, or it is sure to spoil all your plates. Use a rack to dry the plates, as that gives a chance for the solution to run off the corner, and, besides, there is no fear of capillary attraction, carrying some destructive element upon the surface. Of course you old readers will fail to see any good in this rehash, nor would I two months ago; but my late experience teaches me that even old ones can learn if they will. I write this for those who read, and ask them to think it over.

There is another point I wish to make in this communication, which I found all out of joint again, and that is the manner of dipping the plate in the bath. If you will refer to the papers mentioned above, you will see that I recommended that the bath be so tipped as to bring the back of the plate up. It is recommended by some writers to fix the bath-dish on an axis so that it will tip to and fro, which is all very well, but not necessary. The glass bath is generally set in a wooden box, sufficiently broad at the bottom to make it safe to keep it standing Nothing else is needed. the bath-dish upright all the time, tipping it back just enough to allow the dipper holding the plate to be easily immersed and then straightening it up again, in which position it should remain until the coating is accomplished. Then tip back, remove the plate, and straighten up again.

## THEORY AND PRACTICE.

BY F. M. SPENCER.

IF called upon to decide the merits of either theory or practice alone, I should unhesitatingly choose the side of practice, because it provides its own demonstrations; because it has the element of productiveness inherent in itself, whereas theory alone is wholly unpractical and visionary. Mere. practice is desperately conservative and non-progressive, always plodding in the same orbit, losing something by friction and gaining nothing except by force of accident; it is wholly imitative and mechanical; it evolves no change; it maintains a perpetual statu quo by virtue of a "bread and butter" necessity. Theory alone is aggressive, and endowed with the eternal spirit of progress, but unless reduced to practice it proves nothing, achieves nothing, earns nothing, but perishes of neglect in the cradle of its birth. Like Adam's need, "theory" must needs have a helpmeet, it not being good that it should live alone; so the second marriage known in the world's history was consummated when Eden's gates closed behind the retreating footsteps of original humanity. It is true that the conjugal tie has not always been blessed with harmony. Theory has a strong tangent tendency toward the great beyond, whereas practice, like the moon, early got her face set on the "dot" within, and so it has been a life of "pull and tug." Which of the two has borne the greater burden it is hard to tell; but it is clear that theory would have been fearfully used up if practice had not kept him company, restrained his waywardness, and cooked his hash.

Let us consider for a moment what are the true qualities of these terms, theory and practice; terms so often antagonized. The plodding manipulator is apt to sneer at theory, forgetful that at least only a small percentage of his skill acquired by imitation or transmitted to him as naked facts unaccompanied by the philosophy, the bedrock of abstract principle upon which they depend, is the result of accident or blunder that must be repeated until the fact, without the why, becomes apparent; he is apt to display a pitiful ignorance of the truth that

nearly all practical knowledge is based upon theory; that daring, noble, brave thinkers have evolved the great mass of all knowledge by a process called theorizing, by putting together facts already demonstrated, and drawing deductions by analogy based upon well-known principles; or from observations of the processes spontaneous in nature, and applying the established principles of natural law, theories are arrived at that may be either established as a fact or a delusion, by a process called experiment or demonstration.

It is often necessary that a great number of experiments should be made to establish the truth or fallacy of a theory, for if the theory be a true one it is also a fact capable of demonstration; but it does not at once follow that the theory is false because the demonstration fails to establish its truth. The application of the process of demonstration may be erroneous, teaching us that we ought to be very cautious about arriving at a conclusion hastily, and it also teaches not to be contemptuous of what is called theory. Photography is the offspring of theory from the very first conception down to the latest application. It has enlisted an army of brilliant minds, including some of the rarest genius of the nineteenth century.

Agassiz said it was not his business or desire to reduce a single theory he could establish to "commercial value or practice; that he could not spare the time." In the vanguard of progress the vidette and scout is the theorist. Once establish a theory of commercial value and it will take care of itself.

Practice is only theory crystallized; theory discovers the ore and points out the way to extract the metal, while practice, the commercial toiler, secures the gold, and both are worthy factors in the world's economy.

I was led to these reflections by getting into a controversy about the siphon. An operator asserted that he could draw all the solution out of a negative bath-holder with the bottom of the holder standing below the point the solution would reach in the bottle into which the bath was drawn. I ventured to question the correctness of his conclusion, stating the law governing the action of the siphon, when he proceeded to

curse and swear and damn theory; "practice was the thing " for him; he could make the bath run uphill, "because he had done it many times." He was indignant when I suggested that he should demonstrate his views to the Philadelphia Water Commission and have the Fairmount engines replaced with the siphon; I told him there was millions of dollars in it. Now I had emptied the same baths by the same method, placed in the same position, and proved by actual measurement that the bottom of the holder was above the neck of the bottle. I made the measurement, because I had heard of this same wonderful performance, and desired to know how much room there was for a mistake, and, perhaps, two or three pints of solution more in the bath would have caused the action of the siphon to cease before the holder was empty; here practice, as is almost always the case, sustained the theory. If a man has only theoretical knowledge he will not be as profitable a workman (until he has acquired practical experience) as the practical workman who knows nothing of the theory; but for downright progressiveness give me one that knows both.

I believe that the best regulator to a human machine is an educated thinking mind. In practice the most successful and wholly practical thing to have is brains in perpetual eruption.

# ART CULTURE.

THE IMAGINATION.

FROM Torrey's Theory of Fine Art we make an extract on the culture of the imagination, which may be as instructive to photographers who are trying to work according to the rules and principles of art, as to artists of any other class. He says:

"Since the imagination is the faculty which is called into the most active exercise, both in producing and judging works of art, it is evident how much must depend on the right cultivation of this great power, how important it is that this regal faculty, for so I think the imaginative power which is concerned in the creation of art ought to be called, should be rightly understood and ap-

preciated at its true value. I am free to say that I have never found anything as yet in the writings of the most eminent of our English critics which seems to indicate that they have seized upon the essential thing which constitutes the power and grandeur of this attribute in man, which has scattered along the line of time, through the whole history of culture, such manifest proofs of its true nature, that it is wonderful how it could ever be misapprehended. If we consider the imagination, indeed, from the point of view of that philosophy, which derives all our ideas from sense and experience, it would follow necessarily that it can be nothing more than what is often represented to be a mere power of repeating, only in a more abstract and feeble manner, combinations which have become familiar, as matters of outward observation. then this view is contradicted at once by any single example of a work of high art which you may please to select. What the heart of man perceives and feels in such a work is not imitation, but inspiration, for such is the word prompted by the enthusiasm of the moment to express the sense of a power above common nature, which must have been present in the inaividual capable of producing such a work. We feel that he is not an imitator, but an originator; that he is not the slave of copy, but the free author of his own work. And we feel with regard to ourselves that our own imagination catches inspiration from what we behold, and works with the same freedom as the artist himself had done, whose work is before our eyes. For it should be observed that, in speaking of the cultivation of the imagination, as a faculty equally indispensable, equally called forth in the production and in the contemplation of works of art, we speak of a power which, in this instance of its exercise, must ever be permitted to retain its freedom. It is common to speak of cultivating the imagination by placing it under due restraint, by setting up for it certain limits and keeping it within bounds. But it is essential to the imagination, whether considered as the original productive power in the artist or the poet, or as that similar power which he addresses and quickens to activity in our own souls, that

it should not be so confined. It must, therefore, have the principle of limitation only within itself. It must not be hampered even by the material it works with, but conquer and subdue it wholly. There is a striking analogy in this respect between the productive agency of the imagination, and the working of the formative processes and of the principle of life in nature. In nature we see form impenetrating the entire matter, residing in it as its true essence and shaping power. Even a crystal we look upon as produced, not by outward and mechanical force, as a lapidary works down the facets of a ring jewel, but by some law of determination that lies within itself or works through the whole matter. So eminently through the entire domain of animated nature we look upon the outward forms as the result of an indwelling principle which disposes of every particle of matter entering into their composition, with a reference alike throughout to its own predetermined end. As altogether analogous to this principle of form and of life in nature may we regard the imagination of the artist or the poet. It works freely and organically, giving itself its rule, or being its own rule; and even when it imitates nature, as in fact it can never safely depart from nature, vet imitating her with a 'rival originality.' To set limits to the imagination then, by our set of outward rules for its regulation, is to cramp rather than to cultivate, to make it subservient to the understanding rather than its co-ordinate, rather than an independent co-worker with it, or, perhaps, to speak with more truth, an originating power which, in producing, gives to each thing its appropriate form, and in so doing spontaneously harmonizes with the laws of understanding. If the imagination then in art, and in enjoying the works of art must have the principle of its guidance and limitation within itself, since otherwise it could not be free, which plainly it must be in this province, it follows that the only way of cultivating such a power is by the right exercise of it. I say by its right exercise; and as we cannot have, in this case, maxims of right as in morals, the imagination must be set in the right direction by examples, by careful and profound study of those actual produc-

tions which, by the general verdict of mankind, are pronounced the most perfect of their kind. In thus reverently submitting to the guidance of the best examples of its own freedom the imagination will learn to govern itself. This is the safest, the surest, the most appropriate discipline which it can exercise itself in. Sadly mistaken will he find himself to be who thinks that anything short of the best is good enough for the imagination, or that it may be safely left to take care of itself. We must study those works which all fit judges in all times have agreed in admiring, and supposing that we cannot at first see what there is in them to deserve such admiration, as how could it be expected that we should, since their power lies deep, and addresses what is deepest in ourselves, yet study and study over again, peruse and reperuse, the feeling of their power will grow in the same proportion with the development of the same power in ourselves."

# PRACTICABILITY OF CARBON.

DEAR SIR: In answer to your request for my experience with the carbon process, I give the following as the results of my labors, without claiming them to be absolute, as it is a well-established fact that with chemical experimenters it is seldom that two arrive at the same results. And when the material operated on is one whose properties are so little understood, as those of gelatin, pure or in combination with other substances, it would be rather presumptive to speak with pretensions to infallibility.

I think a gentleman of Boston and myself were amongst the first who, about the year 1867, commenced to work the carbon process; and you yourself were so much in favor to introduce the new process for the production of permanent photographs, that you commenced to work it yourself, but your ardor soon cooled, and you dropped it like a piece of hot iron. About the same time I had a little tilt with the same gentleman of Boston in your journal, who advocated the superiority of the carbon over the silver process. That I was in the right the past ten years have sufficiently estab-

lished, for if the carbon process for ordinary work had been superior to the silver in but one instance, it would certainly have superseded it; but we have seen nothing of the kind, and to expect now that the so-called Lambertype will revolutionize the photographic world is simply absurd, because the patented improvement of Mr. Lambert of Mr. Swan's process, which we worked ten years ago, is questionable, as it consists of doing away with the double transfer; but instead of a print which could be retouched, worked up, painted, and improved, we have a print with which nothing can be done, no retouching, tinting, or painting, as the glassy surface prevents this, and the glass before transferring likewise does not permit of anything of this sort; then, if very few understand even to retouch or paint on albumen surfaces, it is not probable that to work upon these glassy surfaces will be found an easy matter, except, what is not very likely, the method of coloring on highly glazed surfaces in oil colors, which dry up with a dead surface, as shown by one exhibitor at the Centennial, should find imitators; but in my opinion, as well as in many others, this is called spoiling a good thing. If this is an improvement, I think it is in the wrong direction. Anyhow, after all, this improvement of Mr. Lambert is only a utilization of my negative transfer process, published in your journal about 1867. If I remember rightly, eighteen months or two years ago, the reports of your Paris correspondent were full of the sensation of the Lambert process in France; now if it in reality had been so wonderfully successful, would not proofs of it have been seen at the Centennial Exhibition? But instead, there was nothing there by the process that would compare in beauty with silver prints.

Last fall Mr. Lambert made his appearance here (as I was informed by one of the employés of the establishment), to introduce the new process in one of the first galleries; after one day's labor, the product of which was one positive on glass, he disappeared, so did the picture, as it was found to have split and cracked, and when the proprietor of the gallery in question was asked what success he had with the Lambertype, said he

had only arrived at the experimental stage, and had offered no prints yet to the public, and that Mr. Lambert had not fully instructed him, and that he is still stumbling to produce results which are satisfactory. This looks as if Mr. Lambert's assertion, that a child after a few lessons could work the process successfully, was true. That the carbon process has not supplanted the silver, has its reason to a great extent in the chemical properties of the gelatin, pure or in combination with other compounds; it almost seems as if it had retained some of the sensitiveness of the source (animal matter) from which it is produced. Mr. Nelson, the manufacturer of one brand of gelatin, says: "It must be borne in mind that in all preparations of gelatin its solution should be made at a low temperature. otherwise its characteristic properties are speedily lost; nor should it be kept hot for a longer time than necessary, as this also has the same effect." Dr. Ure says: "The drying of gelatin is the most precarious part of its manufacture; the least disturbance of the weather may injure the product; a thunderstorm sometimes destroys the coagulatory power in the whole laminæ at once; even a slight fog produces a serious deterioration." Now, if this can be the case with the raw product, would not the same influences have effect on gelatin carbon tissue when wet? Does this not explain sufficiently the uncertainty in working it? In my experience up to within a year, I have found that for positive printing gelatin, in combination with bichromate of potassa, is the most uncertain and unreliable compound imaginable. It is not the light only which renders it insoluble; it is just as effectively acted upon by the atmosphere and certain gases; even its solution, in combination with chromic salts, kept in the dark, have become insoluble in a short time; and on glass plates heavy films became insoluble by the time the gelatin was dry. Even when they had been kept in perfectly dark rooms, and very often having sensitized a number of sheets at night, I found their surfaces so much affected in the morning that I could not develop clear high-lights. At other times all seemed to work well. This uncertainty was very discouraging, as I

never could make a promise when an order could be filled with any degree of certainty, and one of the reasons why I abandoned carbon printing for portrait work. I found that coal gas affected the sensitive film to such an extent that a piece held over a gasjet (unlighted) for a few minutes will render it insoluble; the same effect was produced by drying the sensitive tissue in a moist room slowly. Tissue unsensitized becomes insoluble after a time; I not only found this to be the case with that made by myself, but it was the same with Braun's and Swan's. This shows that gelatin, in combination with foreign substances, as sugar, glycerin, etc , is a very unreliable substance. Gelatin, pure, as we buy it, is always soluble; why does it become insoluble in combination with those substances it has to be mixed with to fit it for photographic purposes? How does this compare with silver? Is not, in this very-important point, the silver far above the chromatized gelatin? Silver printing is so well understood, that it is no risk to say a child can work it.

The second point to decide is application and facility of operation of the printing process. First, in regard to timing, with the silver we can watch the progress and can suit our wishes to the point, and if by chance we have over- or under-printed, we can rectify it to a degree in the after opera-In the carbon it is all guess, all in the dark, and no remedy when over- or under-exposed, and when operated on large numbers of negatives which are wanting in uniformity, it is rather perplexing. Then even the photometer is of little use; as for carbon its registration is not delicate enough, the more so as it gives different results when exposed to sun or shade. This makes point No. 2 in favor of silver. But how about all the fancy printing now in vogue, by which such beautiful and pleasing effects are produced, like vignetting in light and dark, the printing of masks and designs outside the picture, etc.? Carbon admits of nothing of this kind. This is point three in favor of silver.

In regard to facility of doing a large amount of work in the shortest time and with the smallest amount of labor, silver is far ahead of carbon. In silver we can

operate en masse; in carbon everything is en detail, as a carbon print in the condition of development, and until it is through all the operations and dried, is as tender as butter in July, and has to be handled very tenderly, each one by itself, and if the result of one day's labor had to be only two hundred cards, fifty cabinets, one dozen 6 x 8, and a few large prints, which I very often have seen done by two persons with silver printing, without loss worth mentioning, it would take half a dozen persons in the carbon process with that amount of work, with a loss of 20 to 25 per cent. of material, and much larger facilities than the silver process requires. This is point four in favor of silver. Silver is ahead of carbon in regard to its facility to produce different tints in the prints. Few photographers would like the trouble of making their own tissue, and as Mr. Lambert does not teach his subscribers how, the operator has to buy the tissue, and has to use it whether he likes it or not. Those prints of Mr. Lambert's I have seen were of an unpleasant reddish tint, rather flat, and wanting in brilliancy. To be entirely successful in carbon printing, one must make his own tissue; this will enable him to suit his negatives.

Next, the cost of producing the work is to be considered. As we have to buy the tissue we pay three times the cost price, and one sheet will cost as much as one sheet of silvered albumen paper, which is almost all the cost in the silver printing, as the toning and rest amounts to but a trifle. To the cost of the tissue is to be added a coating of wax on the glass, and a coating of collodion in the Lambertype, and one sheet of gelatinized photographic or other good paper, two sheets of paper, and a coating of rubber varnish in the Swan process. All these operations of waxing, coating, varnishing, and transferring and retransferring, not only take up a great deal of time, but are quite expensive and not always successful; they often fail and have to be done with the greatest care, and at the end of three months not an unimportant item is the expense for gas for light and heating.

Again, in the silver process all the wastes can be recovered, whereas in the carbon wastes are wastes, and therefore losses. My

experience has been that carbon, in material and labor and losses, was three times that of silver. So far every point has been carried by the silver, and we come now to the most important, the point of permanency, and this is claimed to compensate for all the other shortcomings. I cannot agree to this. When I took up photography, about twenty-three years ago, all prints were made on plain Saxe paper, toned and fixed in a combination bath, which gave fine results. The other day only I came across a number of prints in a portfolio which I had made at that time, and which look exactly as the day when made. Notwithstanding they had been kept in all sorts of places, damp and dry, hot and cold, they were fresh-looking and smooth, being unmounted, whereas on trying to open a roll of unmounted prints by the Lambert process, all broke and tore to pieces; the gelatin and collodion had become as brittle as glass. After the albumen paper had been introduced I made a number of experiments in regard to their permanency, and how they would be affected by the substances used for mounting. Amongst others were the following:

No. 1, one-half of it was mounted in the usual way with fresh starch; the other one-half with the most sour starch.

No. 2, before mounting, the back was coated with a two-grain solution of collodion, and then mounted with sour starch; when dry one-half of the front lengthwise was covered with a thick layer of the same starch.

No. 3 was coated all over the back with collodion, mounted with sour starch; when dry the front was coated with collodion and one-half with thick, sour starch. All three were nailed on a whitewashed wall three feet above a washing tank (at that time our prints were washed all night). This room being on the ground-floor, with no cellar underneath, was one of the dampest places I ever saw. After an exposure of three months no perceptible change in either. After six months the same, when I forgot all about them, and it must have been more than a year after when I came across them, and found, by careful examination, that

No. 1 was slightly faded in the half mounted with sour starch.

No. 2, the half which had been covered with sour starch in front, showed perceptible signs of fading, according to the thickness of the coating. The other half was perfectly fresh.

No. 3 showed no signs of fading. This convinced me that carefully made and wellwashed albumen prints, mounted with fresh starch, are as permanent as can be expected, but that a print covered in front and back with a thin collodion is absolutely permanent, under the most trying circumstances, and superior to carbon, as I never could render the gelatin of a carbon print impregnable to water except with a heavy coating of plain gelatin and thick turpentine varnish; and it is natural that a picture dyed in the substance of its support should be more permanent than one that is only stuck on top of it, and of such a nature as gelatin. I likewise condemn gelatin for mounting, as it will absorb moisture, whereas starch when once dry is almost entirely non-absorbent. This has been my experience with the carbon process up to within about one year, and is about the condition of its standing in general, I suppose.

One more difficulty in working it in this climate during the summer months with regularity I forgot to dwell upon. Gelatin solutions become fluid according to their strength; a 30-grain solution at about 70° Fahrenheit, a 60-grain at 85° to 90°, and so The common strength is about 60 grains. Now, with the thermometer at 90°, how is gelatin to be kept on the paper? Even if it is sensitized with ice-water, it will run off the paper before it is dry; therefore the drying could only be effected in a place where the temperature can be kept down artificially at least to 80°, as in a cold place like a cellar in summer it would not dry at all, or when dry be insoluble.

Having given up the silver portraiture entirely, and accepted the superintendence of the photographic department of the Philadelphia Bank Note Company, and using gelatin compounds to a great extent, I had a good opportunity to study the properties of gelatin, and after a good deal

of hard work I can say I have become its master, and can work it now successfully without failing, in all sorts of weather, with the thermometer at 95°, in damp or dry places, on paper or metal; but with all these facilities I would not work any carbon process for portraiture in preference to silver, which products are unsurpassable in beauty when made with care.

When I first offered carbon prints to my customers, and after explaining all about their permanency, after their expression of admiration, when a price double that of silver was asked, they, with a few exceptions, would say, "O, the silver prints, we think, will last us long enough."

If these lines had not become too long already, I would have liked to say a few words about washing silver prints, but I retain this for a future communication.

Truly yours,

F. A. WENDEROTH.

# CARBON PHOTOGRAPHY.

PROCESSES WORKED AND PERFECTED BY ADOLPH BRAUN & Co.

(Concluded from page 92.)

III.

Direct and Temporary Transfer.

WE have seen that the adherence consists in the transfer of the impressioned pellicle on a support, either final or temporary, as the case may be.

A thick glass plate is made use of, which is placed horizontally between two dishes filled with cold water.

In one of the dishes the transfer paper is soaked for a few minutes. Then the impressioned image is immersed in the other dish and allowed to remain until it becomes a little soft. Withdrawn from the water, the print is then placed on the horizontal glass, the prepared surface of the new support in contact with the surface of the image. The squeegee is passed over the back of one of the two papers, so as to make a perfect adherence, and the print is set on one side.

Five or six minutes after the adherence these prints may be developed.

Those that have been placed upon a rigid surface, diapositive glass for example, should be allowed to remain for at least half an hour before being developed.

The rigid surface receiving the print should be properly cleaned, without any other preparation.

The water used in these operations should be as clean and pure as possible, and should not exceed 10° Centigrade (50° Fahr.).

It is necessary that this operation should be performed in rather a cool place.

#### IV.

# Washing.

The impressioned print together with its support is immersed in a bath of hot water at from 40° to 50° Centigrade (104° to 122° Fahr.).

In a few moments the coating of gelatin that has remained soluble is dissolved, the first support detaches itself, leaving the image adhering to the second support, the image appearing gradually as the soluble portions of the gelatin separate from the insoluble ones.

When the print has parted with all the gelatin that has not been impressioned, it is withdrawn and placed in cold water.

If the image is over-exposed, the washing is prolonged in hot water.

After withdrawal from the cold water it is well to immerse it in a solution of 1000 parts water and 50 parts of alum, and dry immediately.

When the print has been made with a reversed cliché, and transferred to its final support it is completely finished. This final support is not the same for direct prints and for those which require a double transfer. The reader will find further on a list of the different kinds.

# V.

# Final Transfer.

The print made with an ordinary cliché should be placed on a new support, to regain its true position.

For this purpose is used a glass plate placed horizontally on two dishes, as in Chapter III; one of these dishes contains hot water, the other cold water.

The print to be transferred is soaked for a few minutes in the cold water.

The final sheet is placed in the hot water

and allowed to remain until the gelatin which forms the surface commences to become slightly swollen and soft. It is then withdrawn and adjusted on the print, which has been placed on the plate, the two prepared surfaces in contact. The squeegee is passed over the back of the final paper, so as to make thorough adherence and then allowed to dry.

Avoid rapid drying of prints on caout-

After being well dried, if the print is upon waxed paper, it will leave its temporary support very readily; it suffices to raise this support by one of the corners.

If on the contrary, the print is placed on caoutchoue, the back of the support is rubbed with a small sponge soaked in benzine, and a few minutes afterwards remove as before.

All these manipulations require great care and cleanliness.

# VI.

# Varnishing.

When necessary we use to varnish our prints a special varnish which we can furnish to our customers. A squeegee of velvet made expressly for this purpose is soaked in the varnish, and passed very uniformly over the surface of the print, which is dried rapidly over a small gas stove. Before varnishing the prints must be first retouched.

## Reversed Clichés.

We have shown the advantages, in carbon printing, of the use of reversed clichés.

We will now give the mode of operating. The cliché is made according to the methods peculiar to each atelier; it is kept a little weaker than is required, as the gelatin will have the property of slightly strengthening it. We have found that strong clichés give better results than weak ones.

The cliché is dried and then immersed in a solution of

Water, . . . 1000 parts, Hydrochloric Acid, . . 20 "

In which it is allowed to remain until the edges commence to rise.

It is then washed with care and dried.

The cliché is now placed on a level tripod standing in a dish destined to receive the excess of the following well-filtered solution:

 Gelatin,
 .
 .
 .
 50 parts,

 Water,
 .
 .
 .
 600 "

 Glycerin,
 .
 .
 .
 .
 5 "

Which is poured upon the negative image avoiding the formation of air-bubbles.

When the gelatin is coagulated the cliché is allowed to dry spontaneously, and is collodionized with normal collodion.

This last coating when dry is cut on the edges with a knife, and the cliché leaves the plate very readily. The negative forms thus a pellicle which is easily kept in a book

If it is desired to replace this cliche on glass, it is useless to collodionize it after having covered it with gelatin. In this case it is placed on a perfectly clean plate covered with a coating of gelatin containing alum.

The adherence is obtained by the use of a very soft squeegee in the identical manner employed to fix a carbon print on glass.

It is well to affix on the edges strips of black paper, placed half on the glass and half on the pellicle, so as to prevent any ulterior detachment. These strips serve also as opaque borders in the printing.

#### The Photometer.

The photometer that we make for the use of our customers consists of a little box, the glass lid of which is furnished with a series of nine tints increasing gradually in intensity. In the centre of each of these tints is a small space completely opaque.

A strip of sensitized paper is placed behind this scale of tints, and the photometer exposed to light. As soon as the tinted divisions become impressioned, the opaque space will appear in white on the sensitized sheet, and opposite a number which serves to indicate a tint corresponding to the more or less vigorous appearance of a cliché.

The strip of sensitive paper is placed on a movable board, covered with caoutchouc im-

pregnated with a little benzine so as to retain the paper.

For sensitive paper we make use of the back of our sensitized pigment paper.

Before commencing regularly the printing it is well to develop a first print which, by the aid of the photometer, will determine exactly the time of exposure according to the sensitiveness of the paper.

We should remark that in developing the prints a certain time after their printing, they become stronger, and consequently should be printed a little weaker than if they are developed when just coming from the frame.

Our photometer is so easily used that we have no hesitation in recommending it to our customers.

We have given as simply and as clearly as possible the different operations of a process used daily in our ateliers by nearly one hundred employés. If we insist on the importance of our work, it is in the hope that the public will see in it an important guarantee of the correctness of the information contained in this treatise, and which is the result of observations and improvements made during a number of years.

We have not paid much attention to the careful style of our language. In offering this treatise to operators we hope that it will be useful to them in their first serious experiments with carbon photography. Moreover, we place ourselves at the disposal of our customers who might wish to see in our ateliers the different manipulations as we practice them there.

# FRENCH CORRESPONDENCE.

March Meeting of the Photographic Society of France—Would it be well for Photographers to cry down Unlawful Patents—Carbon Tissue can now be Obtained in France—Report of the Commission on the New Washing Apparatus—Presentation of Proofs—A knell to the Violet Light as Proposed by Mons. Scotellari.

The Photographic Society of France assembled last Friday evening, the 2d instant. Very little business on hand, and if it had not been for a very interesting discussion upon protecting the rights of photographers

against unprincipled takers-out of patents, the meeting would have been very dull indeed. A proposition was made that the "chambre syndicate" should judge the rights of certain inventors to trespass on ideas already known, and gave the following history of how certain swindlers got a patent in order to speculate upon the trade: One of the latter class entered the other day into a photographic establishment, and having asked for the proprietor, said to him: "You employ such and such a process; do you not know that it is patented?" "Impossible," replied the photographer, " as it was used by my father twenty years ago." "No matter," answered the other, "here is a copy of my patent, and I shall be obliged to enter an action against you for infringement of my patent rights unless you purchase a license of £20." The poor victim prefers to pay the sum rather than have a lawsuit with its train of expenses and loss of time. The trick is thus played upon several, until one is found to resist; then the scamp is obliged to work his wits to find another subject with which to dupe the public, and, what is wonderful, spends more tact, judgment, thinking, and trouble than an honest man would have to employ to make a fortune.

Many members gave it as their opinion that the "chambre syndicate" were justified in trying to put a stop to such unlawful doings, the more so that no aid can be expected from the Photographic Society of France; the latter, having been formed only for the advancement of photography in a scientific and artistic point of view, have ever abstained from interfering in business matters either as regards recommending establishments or processes to the public.

Mons. Braun has succeeded in manufacturing carbon tissue in a very recommendable manner. He left several trial sheets for the members to make experiments, at the last meeting of the Society. Many proofs were brought last Friday evening made from that tissue; they were very much admired, as they merited to be, for they were perfect in every sense. Mons. Braun was congratulated by the members for the progress he had made in the manufacture of that useful article, and the gen-

eral desire was that ere long it would not be found necessary to order the tissue from a foreign country.

Mons. Franck de Villecholle read a report of the commission which had been chosen in order to give their appreciation on the value of the new washing machine for photographic purposes. In my last communication to the Philadelphia Photographer I had the honor to describe that machine.\* The commission was of opinion that the apparatus had been very well invented, and would, in all probability, render great service to photography; but, at the same time, desired to propose a little modification in the form of the paddles of the waterwheel which are employed to keep the proofs in motion. The modification consists in curving them a little more at the ends than those made by the inventor, to prevent the proofs being cracked by folding under their action. I saw the apparatus at work a few days ago, and observing that some of the proofs were injured by the paddles, I proposed to attach to their ends a flat piece of india-rubber of a spatula-like form. This was done, and the owner tells me that it has ever since worked admirably. I have no hesitation to counsel its employment; the expense occasioned by a trial would be amply repaid. A tinman could make the little overshot wheel; as for the trays they could be obtained ready-made. Time is so valuable and labor so expensive, that this little apparatus, invented for the saving of both, can but meet with the success which it deserves.

Many proofs were handed around to the members made by Mons. Ziegler in silver salts, and others made by Mons. Gillot by his photographic process, after which the meeting broke up.

A short time ago I was again invited, by a celebrated Parisian photographer, to be present at a new trial of Mons. Scotellari's idea of the violet light for studios. Although my friend, Mr. Gaffield, writes in your journal "From all that I can learn from intelligent photographers," etc., etc., this appreciation did not hinder me from going

to the rendezvous in company with the Messrs. Downey, photographers to the royal family of England.

The following experiments were made:

	Violet Light.	White Light. 15 seconds.	
1st.	15 seconds.		
2d.	71 "	15 ''	
3d.	8 "	16 ''	
4th.	6 "	9 "	
5th.	9 "	6 "	

The first and last were in favor of the violet light, the three others in that of the white.

Now it must appear very strange to the readers of the Philadelphia Photographer that, by an equal exposure, the same results are obtained in Paris, whereas, in America, Mr. Gaffield and a gentleman who signs himself R. J. C., cannot come near those results. I will endeavor to explain this. The two last-named gentlemen are quite correct in their assertion, because they employ the viólet light by transmission, which cuts off a considerable proportion of the chemical rays. Mons. Scotellari also cuts off some of the chemical rays, but by having the whole room of a violet color he gains a certain part of what he has lost by the sum of light reflected upon the model, and so he succeeds in making a negative in the same time as with the ordinary light.

I am convinced that if he had contented himself with only proposing that the walls, reflectors, etc., of the studio, and even the side-lights should be of a violet color, he would have obtained a legitimate success; as it is, by grasping at the shadow he has lost the substance; whether it was from ignorance or from a desire for "filthy lucre," I am at a loss to know. Honor would have been obtained by him had he informed the public that violet surfaces reflected the maximum of light received, and greater rapidity could be obtained by employing violet screens, etc. But no patent could be obtained to prevent photographers from painting their walls of a violet color, or from using violet blinds, etc., so he was obliged . to propose to paint or daub a violet color over the glass in order to obtain a patent and have a sale for his composition. In this he has hardly succeeded, and his proposition will soon fall into oblivion, if Mr.

<sup>\*</sup> See page 100. Both our French and German Correspondence were received too late last month.

Gaffield or some other courageous gentleman does not take the matter in hand, and make some experiments upon the violet light, not as a transmitted medium but as a reflected agent.

PROF. E. STEBBING.

Paris, 3 Place Bréda, March 3d, 1877.

# OUR PICTURE.

"IN YE OLDEN DAYS."

WE present our readers this month with another composition picture of an entirely different nature from the one given in our last, and one that will thrill the soul of more than one of our fathers of photography, and bring back to them the memories of their childhood. We have not been able to use the same subjects for the whole edition, but they will illustrate the same point, Our object is to give a picture telling of the good old days of not so many generations ago, when the art of photography was unborn and the vocation of the process seller was unknown. We have represented by our picture the costumes which were in fashion in the olden time, and, as we have said, not so far back but what many of us can remember them. The ladies who sat for us were of those who had in charge at the Centennial Exhibition the building known as the "New England Kitchen," and the costumes were such as have been handed down from generation to generation by somebody's forefathers and foremothers. it little matters whose. As we look over them we are reminded of those happy days of our own childhood, when, as the inspired Whittier has so beautifully written it,

"We did our nightly chores—
Brought in the wood from out of doors,
Littered the stalls, and from the mow.
Raked down the herd's grass for the cows:
Heard the horse whinnying for his corn;
And, sharply clashing horn on horn,
Impatient down the staunchion rows,
The cattle shake their walnut bows.
While peering from his early perch,
Upon the scaffold's pole of birch,
The cock his crested helmet bent,
And down his querulous challenge sent."

But those primitive days to most of us are gone, and we only hold them in our

memories. Alas! how often do we think of them, and remember again in the language of the poet:

"What matter how the night behaved?
What matter how the north wind raved?
Blow high, blow low, not all its snow,
Could quench our hearth's fine ruddy glow.
Oh, time and change, with hair as gray
As was my sire's that winter day,
How strange it seems with so much gone
Of life and love to still live on.
Ah! brother, only I and thou
Are left of all that circle now,
Of dear home faces whereupon
The fitful firelight paled and shone."

How strange do these costumes look to us now, or to those of us who do not remember ever seeing them in our households; but after all there is but little that is strange in it.

During the season of the Centennial, as we looked upon the costumes of the various nationalities who were there represented, and thought over the very unsophisticated and innocent way in which some of the curiously dressed appeared, we queried whether or not we did not appear as curious to them as they did to us; and this brings to mind an old essay written twenty years ago by some noted author on what the Chinese think of the Europeans. Among other things, he says: "They (the Chinese) express unutterable astonishment at the sight of their scant garments, their close-fitting pantaloons, their prodigious round hats in the shape of a chimney, their shirt collars, which appear devised to saw the ears, and which so gracefully serve their grotesque faces, with the long nose and blue eyes, with a beard or mustache, but which display in compensation on each jaw a handful of red and frizzled hair. They are puzzled above all by the shape of the dress coat. They endeavor, without success, to account for that strange habiliment, which they call a half garment, because it is impossible to make it meet on the chest, and because the tails which hang down behind are entirely wanting in front. They admire the exquisite and refined taste of wearing at the back large buttons like coins without having anything to button to them. How much more beautiful they think themselves with

their oblique, narrow black eyes, high cheek-bones, nose the shape of a chestnut, a shiny head adorned with a magnificent tail which reaches to the heels. Add to this graceful and elegant type a conical hat covered with red fringe, an ample tunic with large sleeves, black satin boots with white soles of an enormous thickness, and it is beyond dispute that a European can never rival the Chinese."

With all we have said we fear we have not said very much of the days of "Ye olden times," but our readers will know what we mean. The negatives and prints were made by the Centennial Photographic Co.; the latter on Dresden extra brilliant paper.

## SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday, March 1st, 1877, the Vice-President, Mr. Carbutt, in the chair.

The minutes of the last meeting were read and approved.

Mr. Henry C. Bridle was elected to membership.

A vote of thanks was tendered to Mr. McCollin for his demonstration of the Lambertype process at the last meeting.

The Corresponding Secretary read a communication from the Photographic Society of Amsterdam, announcing an International Exposition of Photographs and of articles connected with the art, to be held at Amsterdam in the month of September next.

On motion, it was resolved that Mr. L. T. Young be requested to read a paper on the washed emulsion process at the next meeting.

Mr. Carbutt exhibited an admirable reproduction of a negative made through the medium of a carbon positive, also some copies of maps, etc., etc.

Mr. Corlies exhibited some prints from washed emulsion negatives, ten months

Under verbal communications, the subject of the heating power of blue light was referred to, particularly in connection with the experiments lately made by General Pleasanton. Photographic experience would

seem to show that blue light had a marked effectin intercepting heat rays, for cases were mentioned where apart from considerations of actinism, it would have been impossible to photograph certain microscopic specimens in sunlight owing to the intense heat, the difficulty, however, being entirely removed by the use of the sulphate of copper cell. Solar printers had also availed themselves of this property of blue glass, in order to prevent negatives from getting overheated under a powerful condenser.

Mr. Leaming exhibited a negative made with Newton's emulsion.

Mr. Rau exhibited a portable French camera with double backs, called the "Scenograph."

On motion, adjourned.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

PHILADELPHIA, Feb. 13th, 1877.

THE stated meeting of the Pennsylvania Photographic Association was held at 1427 Ridge Avenue, President F. S. Keller in the chair.

There being no regular subject for the evening, silvering of the paper, printing and toning, were taken up. An interesting interchange of opinions in regard to the same made the meeting one of great interest. At a future meeting, the members will give their various formulæ and exhibit prints.

The Secretary stated, that to use felt instead of blotting-paper to back the plate with, would last longer, save more silver, and could be more easily handled.

Mr. Clemons promised, at the next meeting, to exhibit prints eighteen months old, treated by his alum eliminating process.

On motion, adjourned.

CHARLES EVANS, Secretary, 814 Chestnut Street.

PHILADELPHIA, March 13th, 1877.

The stated meeting of the Pennsylvania Photographic Association was held at 1427 Ridge Avenue, Vice-President M. S. Hagaman in the chair.

Minutes of last meeting read and approved.

The Secretary stated that his attention had been called to an article in the March number of the St. Louis Practical Photographer, in regard to the report of the meeting of January 9th, the motion to have the reports of the Association sent to the St. Louis Practical Photographer, having been left out of the published report in the Philadelphia Photographer, and desired to make the correction.

It was moved and seconded that the Secretary make the correction. He stated that in making out the reports of the meeting of January 9th, he having inadvertently omitted the motion in his report to the *Philadelphia Photographer* was the reason it did not appear in that journal.

Mr. Clemons exhibited some very fine prints on his matt surface paper, printed and eliminated by his process by Mr. Marston about eighteen months ago. They showed no sign of change, the tones and whites being still excellent.

Mr. Smith gave his formula for reducing negatives. He uses a saturated solution of perchloride of iron, 10 drops of which are added to 1 ounce of water. After being applied the negatives are well washed and treated with hyposulphite of soda. He claims it as excellent, especially for reducing white draperies.

On motion, adjourned.

CHARLES EVANS, Secretary.

Studio of J. W. Black, March 2d, 1877.

Boston Photographic Association.— The President being absent, the meeting was called to order by the Vice-President, Mr. A. N. Hardy.

The records of the previous meeting were read and approved.

The annual report of the Secretary showed that, during the past year, the Society had held nine meetings, with an average attendance of about twenty members. At the last annual meeting the number of members was fifty-five, present number fifty-two, of which four are honorary members.

The Treasurer's report showed, cash received, \$159.92; paid out for all expenses, including rent, \$47.40, leaving a balance in the hands of the Treasurer of \$111.52.

Mr. George H. Hastings was proposed for membership by Mr. E. F. Ritz, which was approved by the Executive Committee, and Mr. Hastings was declared elected.

On motion of Mr. Bowers, it was voted that the report of the Executive Committee, on the suggestions of Mr. Loomis, changing the constitution, be deferred until our next meeting.

Specimen prints, made from Richardson's paper, were brought in for inspection by Mr. T. R. Burnham, A. N. Hardy, D. T. Burrill, which were considered very fine, and showed the advantages of Mr. Richardson's paper. Mr. Burrill also exhibited some large Lambertypes, which attracted considerable attention, and elicited many favorable remarks.

The weather being rainy and but a small number present, the meeting was adjourned without transacting any other business.

> ERNEST F. RITZ, Secretary.

# PHOTOGRAPHIC NEWS.

THE latest sensation in photography is the discovery, by a French savant, of a method of transmitting photographic impressions by telegraph. What the process is we have not yet been informed; but if it proves a practical success, the field for its application must be very wide. When this invention comes into use criminals will fare badly. Now, a man may elude recognition from a written description of his height, complexion, etc., but when his portrait on flashes of lightning precedes him to the ends of the earth, his escape will seem impossible. Swindlers and impostors of every kind may be shown up and circumvented by this process. This, together withthe other new achievement, the Telephone, or method of talking by telegraph, will revolutionize business and all means of communication. The applicant for a post-office appointment in California may plead his case with the President, though three thousand miles intervene, and at the same time, as an additional recommendation, show him his portrait. Business men may contract partnerships, lovers become betrothed, and business of all kinds transacted as face to face, no matter what the distance may be that separates the parties; in fact,

space will be practically annihilated. What a beautiful union of the two latest and greatest discoveries in art and science!

The rapid process appears to have been at last discovered by M. Boissannas, of Geneva. It is said to be the wet collodion process, with modifications in the collodion bath and developers, and with it he produces pictures of children, cats and dogs in their various moods of playful animation, or characteristic antagonisms, and all seem to be sufficiently exposed. The process appears yet to be a secret.

A NEW method of drying carbon tissue was recently communicated by Messrs. Geruzet to the Brussels section of the Belgian Photographic Association, which consists in immersing the tissue in alcohol for a few minutes, after it has been sensitized and squeegeed, to free it from excess of solution. The advantages are said to be that it allows the paper to be sensitized a short time before using, and does away with all danger of insolubility. Mr. Waldack, referring to this in his correspondence to the Photographic News, says: "The example of Messrs. Geruzet, who, as professional photographers, would be interested in keeping a good thing to themselves, deserves to be followed by those of the Lambert licensees, who are supposed to reserve a few of the most valuable wrinkles for their exclusive use."

An improvement is said to have been made in photo-engraving by Mr. Boivin, by which plates are produced that may be printed from in a printing or engraving press. The process is that of etching zinc plates with acid, and the improvement consists in using wax instead of asphalt to protect the lines from the action of the acid.

THE Platinum process of Mr. W. Willis, Jr., seems to be gaining favor. It has been successfully worked for some time in England by the Albion Albumenizing Company, and is soon to be worked in Paris by M. Leon Vidal. Messrs. Poulenc & Wittmann have bought the patent for France.

Some further test experiments have been made with violet light, by which the recent report of the committee of the Photographic Society of France was sustained, and Mr. Scotellari's claim proved to be erroneous.

# R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 74.)

WE will accept the assumption that you are an operator, and propose to spend at least the entire day away from your rendezvous. We will also take it for granted that you wish to supply yourself with sufficient materials, and of the proper kind, to produce a large number of negatives.

In looking over the contents of the van or wagon that accompanied me—I was always methodical—in the first place, I was precise in securing the best attainable instruments.

My next business was to examine the glass; an article in relation to negatives very much resembling the foundations of a building.

Good glass was furnished to us, and as it was almost invariably new or unused before it came to our hands, the process of cleaning was simple.

I will incidentally remark that the best glass that I have ever manipulated for negatives was from an English manufacturing house. It was advertised as being polished upon one side, and the successive pieces, as we unpacked them, were found to be protected from contact with their neighbors by sheets of soft paper.

I have an irresistible inclination to speak once more about my process for cleaning plates that have been formerly used for photographic purposes. Plunge them in strong commercial nitric acid that has had the addition of a few ounces of alcohol, and I will warrant that, whether varnished or otherwise, they can be removed from such a bath in a very few minutes, perfectly well adapted (after slight washing) for undergoing further operations.

The albumenizing of the plates is the next thing in order, and is an important matter.

I was, early in life, inculcated with the belief that all pertaining to the Quaker City was good, and that the Schuylkill River and the Fairmount Water Works were beyond all other institutions free from reproach. Lately my faith has been shaken. Companions in distress, that is, in photographic work, have traced so many of their grievances to the use of impure water that I am inclined to consider their complaints, and to compare experiences with a due amount of seriousness.

The advantages appertaining to the adoption of albumenized glasses for negative purposes are so generally conceded that the question is not worth discussion. The method of preparing them is quite another matter, and calls for the closest investigation. Our consumption of plates was great enough to require the entire services of one man, whose only duty was to prepare them for us. Early in the season, the orthodox method of thoroughly beating up the white of an egg, diluting it with water, and filtering through cotton was preferred.

Complaints began to be rife among the operators, of spots and streaks, the cause of which could be distinctly traced to the use of albumen as a substratum.

Then we switched off, and for a long time stuck to the method so well and favorably known to dry-plate workers and to the manufacturers of transparencies as the albumen process.

Troubles more imaginary than real were apprehended from contamination to the baths, by the slight addition of ammonia that the formula demanded. Nonsense, every bit of it. In the first place, plates well handled should receive very little of the coating upon their backs. Again, during the time of their drying almost every trace of the ammonia will have evaporated, and even in the case of some of it remaining, I cannot imagine that any great harm to your silver solution will result from their immersion in it.

The receipt, as published many years ago and still remaining unimproved, calls for the whites of eight eggs to be most carefully separated from their yolks and germ. To this add twenty-four drops of glacial acetic acid, diluted with an ounce of water. Stir well for a few seconds or a minute, making no attempt to beat up into a froth. Allow the liquid to remain undisturbed for an

hour or more, and then strain through a piece of muslin or fine handkerchief. Finally, drop in half a drachm of liquor ammonia F. F. F., and feel happy in the assurance that you have on hand a sample of stock albumen that will remain good and ready for use for months, provided that in the meantime you do not consume it. When you do call upon this standard, take an ounce of it and weaken with twenty-five or thirty additional parts of pure water. Filter at least twice, through reliable paper, such as is sold for the purpose. I detest the practice of using cotton for any other liquid beside collodion, and then I am always inclined to think that I am straining instead of filtering.

The glass, well washed, should be flowed with this dilute mixture one or more times. Then it should be placed in a clean rack, or rested upon nails (previously shellacked, driven into a wall whose outside surface is free from lime), and allowed to dry spontaneously.

All of these precautions our glass-man faithfully observed, and still we were troubled with spots. Sometimes there were such myriads of them that I know of no instance in which they were ever counted, or calculations made as to how many a square inch of surface could contain. It was especially aggravating that they should make themselves apparent upon portions of the plate where they should be the most objectionable. Transparent shadows or dense lights were not much affected, but delicate half-tones were more spotted than would be the skin of a youngster afflicted with small-pox.

Some of our men, in their intense degrees of exasperation, fits of fury, would no doubt have torn out their hair by the handful, if it had not been mercifully ordained that during the hot weather, with a sense of comfort controlling our actions, we had not all roamed around short-cropped.

With the coming of frost the trouble vanished. When ice formed in the gutters, ditches, creeks, and rivers, the water or the albumen, or both together, suddenly became free from reproach.

Our good, jovial friend, Mr. Seaver (one of my co-workers), and whose bulksome

shadow, I trust, will never grow less whilst he isable to handle an instrument, attributed the whole trouble to the presence of fatty animalculæ in the water that we so liberally used. We were not offered the means of microscopic examinations, but I am almost inclined to accept his theories as being correct. The only offset is this:

During the hot weather, whilst intensifying our negatives with pyrogallic acid and silver, we would occasionally, unrecoverably, stain them without any other apparent cause than the flow of the water-tap or spigot upon the parts most marked. This evidently noted a chemical rather than a mechanical action, and I know of no better way of getting over the difficulty than that of accepting both explanations. Let us implicitly believe, that in one instance infinitesimally small wrigglers left their corpses upon our otherwise unsullied plates, and that in the other the artisans, dyers, and manufacturers located upon the banks of the stream from which we draw our water-supply, have so contaminated it that it has become unfit for any delicate chemical purpose, and remains useful only as a draught with which to quench thirst.

The glass, prepared as well as circumstances admit of, should be slid into the grooves of negative boxes, and allowed to wait until called for.

Now come the troublesome items of bath and collodion. I will tackle the first firstly, because I think it the simplest and most easily disposed of.

Good nitrate of silver and pure water must be the concomitants.

If I mince over every little item connected with the prosecution of our business, I am afraid that I shall swell my chapters into volumes. Crystallized nitrate of silver, as it is required by us, is easily attainable from the supply depots that are scattered everywhere over the inhabitable globe. In case you do get among heathens, where silver bullion and not chemicals are known, then go to work and make it for yourself. If you wander so far away that money is not in use, then you had better abandon photography.

After you have obtained silver coins, you can dissolve them in nitric acid diluted with

twice its bulk of water. Nine times out of ten you will find that your money has been alloyed, and that either copper or tin has largely entered into its composition. If tin is present, there will be a precipitate left that can be got rid of by evaporation, redissolution, and filtration. If copper troubles you, you can send it upon other business with a little oxide of silver.

Pure water is a desideratum. Distilled is the best, but unfortunately the druggists have a habit of supplying you from the water-pipes attached to their stores, rather than the carboys supposed to contain it. The filtered drippings from ice or from snow, or carefully collected rain-water, will answer every purpose.

Nitrate of silver, in the proportion of from thirty to thirty-five grains to the ounce of water, will give you a bath that you can work with at once, provided that it is slightly dosed with nitric acid, and merely touched up with a little iodide of potassium.

Glass bath-holders are undoubtedly the best, and the silver-wire dippers, in the main, are the cheapest, most reliable, and satisfactory.

In regard to collodions I am in a quandary as to my recommendations. During the season of our operations at the Centennial grounds, it was deemed advisable to procure the most highly reputed brands instead of manufacturing for ourselves.

Hance's became the favorites, and the man ought to have amassed a fortune from the quantities of his "specialties" that we daily consumed.

All collodions for photographic purposes are made from combinations of ether, alcohol, gun-cotton, and certain sensitive salts. It is claimed by many knowing ones, that the choice of these latter is not a matter of very great importance, if you will only give your attention to the relative chemical equivalents contained in each. If you are new to the business, you will do well to purchase manufactured articles, and you will be gloriously upheld by the example of many illustrious artists, who claim that they are unable to make nearly as good an article for themselves as they are able to purchase. Much of this depends upon the

fact, that dealers prepare very large quantities at one time. It is allowed to thoroughly settle before it is decanted, and secures a proper amount of age before it is offered to the market.

I give my unqualified approval to a plan suggested by Mr. Carbutt some years ago. He advocated the preparation of collodions in large quantities, and their separate storage in bottles; the one set containing only iodized, the other but bromized mixtures. By almost instantaneous combinations, you can then adapt your film to the character of the work demanded from you.

For instance, you have an *iodized* collodion, made with equal parts of ether and alcohol, about six grains of cotton, and as many more of your selected iodide or combinations.

You also keep on hand the *bromized*, composed of five parts of ether, three of alcohol, a sufficient quantity of cotton, and ten grains of bromide to the ounce.

Mixed in the following proportions, you can at once answer the requirements of any class of subject that may present itself.

Two parts iodized to one part bromized, for interiors or "exhibits."

Three parts iodized to one part bromized, for quick exposures.

Four parts iodized to one part bromized, serviceable upon almost any occasion; and

Five parts iodized to one part bromized; adapted chiefly to copying purposes.

In photographic literature, for a long time past, the character of the pyroxylin used has not been made nearly so much a matter of debate as the separate sensitizers. In my opinion it is of paramount importance, and the great majority of all the defects shown in a negative are traceable to a defective film. My advice to you is, of course, always to buy in preference to making any attempt at its manufacture. My experience teaches me that the latter is a very uncertain process, and I have repeatedly wondered that the best known makers succeed so well in supplying consumers with so uniform a quality of goods.

In regard to the flowing of collodion, I can give you no new dodges particularly pertinent to the subject. Although there were so many of us clustered together, all

claiming to be first-class operators, and although we kept a sharp eye upon each other's practices, I am not aware that any of us secretly carried on a manipulation unknown to the others.

Now that I have spoken of the bath, and of the collodion, I know that there are many of you who will be solicitous of information about those long exposures. The provision made for such cases was what you might call technical, and suggested more by the teachings of daily practice than by any particular preparation.

A ripe or rather old collodion was to be preferred. On the contrary, a new bath, entirely free from organic matter and not containing a larger proportion of silver than twenty-five grains to the ounce was desirable. A few drops of water in the bottle of collodion was an advantage to it. Bromide of cadmium gave better keeping qualities than any other salt.

After the plate was coated, it was allowed to set much longer than usual, and then when immersed it was kept in constant motion.

It was withdrawn as soon as it ceased to show indications of greasiness, and then well drained.

The back was wiped with Joseph paper, and in some cases covered over with layers of dampened blotters.

In this condition, a plate so prepared is not excessively sensitive. It really *needs* the time to develop its qualities.

The secret of the method is that the unconverted bromide in the film continues to combine with the free nitrate of silver upon it, and so prevents the latter from destroying it.

After exposure, the development is effected in the usual manner, with probably the additional incentive of the use of your solution quite warm.

A good deal of intensification will most likely be necessary. If the negative be properly exposed, and possesses sufficient detail in every part, it can be washed and intensified leisurely. If overdone, it should be fixed and then strengthened afterwards.

We have frequently, even in warm weather, been obliged to let a couple of hours slip by from the withdrawal of a plate from its bath and the development of it. Matt silver was our greatest enemy, and, at times, its appearance was inexplicable. Very often it could be removed without apparent damage to the plate, and each operator selected his own little device for accomplishing the end.

Licking the plate with the tongue whilst it was thoroughly wet was about the most efficacious. Wads of cotton and even a soft brush were much more likely to scratch it.

Perchloride of iron was accepted as a means for reducing the density of portions of negatives, blurred or obscured by streams of strong light. With careful management it proved itself a very valuable servant to us.

We generally fixed with cyanide of potassium in preference to the hyposulphite of soda.

Economy of time was one of its recommendations, but again every photographer, notwithstanding its deadly qualities, will prefer seeing it about his place than the insidious hypo. The better plan for its efficient use is to have the solution contained in a dipping bath such as is used for our silver.

There is no chemical that we are in constant play with one grain of which will do as much harm to any other of our combinations as that of hyposulphite of soda. Beware of it, gentlemen, for if you ever get any of it unknowingly into your baths, you will be puzzled as to a ready method for relief from difficulty.

(To be continued.)

# What I Think of the Lambertype.

BY E. Z. WEBSTER.

Since my last article was written I have endeavored to give the so-called Lambertype process full, and, so far as time and opportunity would allow, a thorough investigation, in order that a just and intelligent opinion might be formed, and the apparent merits and demerits of silver and carbon could be compared.

Two neighbors whose gardens are separated by a high wall, may each boast of his own mode of cultivation, but when a man mounts the wall where he can look down

upon both gardens, he can see for himself and arrive at a more sensible conclusion.

Well, I have clambered up from my Argentum patch, and am watching the work of our Carbonumite neighbor from the top of the wall which divides us.

The result of my observations thus far satisfies me that so far as most of the advantages claimed for silver printing in my last article (see March Photographer) are concerned, there is no occasion to modify my first verdict. Indeed, with but one exception, every item has been verified and strengthened; the one exception is in regard to "softness and delicacy," in which respects the carbon picture, when obtained from a good, strong, well-lighted negative, is fully equal in fineness and delicacy and, if the negative is a little hard, superior in softness to silver prints from the same negative, although I would not like to say that an equally fine silver print could not be obtained from such a negative in the hands of a printer who fully understood the possibilities of silver printing. But the tendency of carbon to soften and beautify the results from strong or hard negatives, has also a tendency to flatten, and reduce the brilliancy of prints from less vigorous negatives. Furthermore, I doubt if it is possible to obtain by the present carbon process as deep, transparent, forcible shadows as are obtained by the silver process, consequently those broad, deep shadows which in some Rembrandt effects give bold and brilliant results, are leathery and unsatisfactory when printed on carbon tissue, and yet there is no denying the fact that really exquisite effects and charming pictures are obtainable by Lambert's carbon processes; and doubtless the investment of a reasonable sum in the carbon patents would, in the hands of energetic and competent manipulators, prove interesting, useful, and, as a novelty, perhaps remunerative; but to discard silver and attempt to rely entirely upon carbon would prove suicidal, because the average prints from average negatives will not compare favorably with silver prints, nor can carbon prints be produced as rapidly or as cheaply as silver, consequently some reason must be given to induce a patron to pay an advanced price

for the carbon-there comes the rub; "Permanency, permanency, permanency," is the only hold which you can get upon him, and that requires so much explanation, and, indeed, in nine cases out of ten your patron will tell you that he always supposed that those photographs which you had always made were permanent: he had never seen or heard of any trouble in that particular; but after showing him some "jaundiced" and consumptive specimens, culled from your old, neglected, abused, and never halfwashed, carelessly finished prints, overlooking and purposely withholding from his observation the greater number of old prints which have stood the test and the abuse of the five, ten, fifteen or even twenty years of their existence, on which the marks of time can scarcely be traced, and when your order for carbon has finally been secured, you find that silver would have produced much the best picture from that particular negative.

The question of permanency cannot be conceded. Carbon itself may prove permanent, but the tints which are imparted to the picture by other pigments and by chemical means, and which lend their aid to beautify the same, are all evanescent, and when they have deserted, the carbon print becomes no less loathsome than a jaundiced silver print, to say nothing of the destructible nature of the gelatin tissue.

As to the validity of the Lambertype patents, I am not prepared to say, but presume that licensees could make trouble for infringers which, in addition to the unavoidable troubles pertaining to the processes, would prove quite sufficient to drive them from the track. I believe that the only claim which Mr. Lambert covers by letters-patent, is for the application of a thin paper to both the front and back of a negative, upon which the retouching and modelling may be done, and whereby additional printing qualities are obtained. The application of a sheet of tissue or tracing paper to the back of a negative is as old as the art, and the paper upon the front of the negative is quite unnecessary if the negative is only made a trifle stronger.

A negative which is so very thin as to require so much reinforcing, may be mod-

elled by an expert so as to produce a pleasing picture, but in the hands of an average manipulator the result would prove a caricature. The other improvements made by Mr. Lambert are in appliances and manipulations which are not patentable, but are in reality the main and only valuable improvements which Mr. Lambert has made upon Swan's and other carbon processes.

Carbon is said to be in its infancy, and yet it was born, christened, and was able to "stand upon its own pins," long before Mr. Lambert took it up. Now as he was not the "daddy," nor the child his by adoption, what right has he to rob him (the child) of his rightful cognomen, and substitute his own name which has no significance? A carbon photograph, or a photocarbon by the Lambert process would be a more significant and descriptive title, and less presumptuous.

Suppose John Smith had started the carbon baby as a "Smithotype," then Jones dressed it up in a new suit, and dubbed it the Jonesotype, and then comes Mr. Swan with another suit, and we all go for the "Swanotype," and then first we know Mr. Lambert grabs the poor waif, and dresses him up just as he thinks best, and shoves him out into the world as the Lambertype, and still the child is a long way from maturity; some one will devise some means by which the double transfer and other objectionable features will be done away with, then up goes the Lambert patents, because a simpler and better process must supplant all others.

# MATTERS OF THE



What is being done in the interests of the National Photographic Association? Are the members sending their dues to Treasurer Moore, and giving him assurance that better times are coming, and they mean to sustain the Association? We should be glad to hear that this is the case. If any have forgotten, we will remind them that the dues for proprietors are \$4 per year, and for employés \$2. The Treasurer's address is, Albert Moore, 828 Wood Street, Philadelphia.

What is our new Permanent Secretary, Mr. J. H. Fitzgibbon, of St. Louis, doing? Is he making any arrangement for a Convention this year? What's the news?

Will not the members give some indication to the officers of the Association of their wishes? Of the hundreds of members scattered all over the country, there ought to be enough who recognize the benefits of the Association to come forward and make it a strong, healthy, working organization, that shall be, as it has been, a power for good in the fraternity.

It is not probable that the hard times would justify a meeting in San Francisco, which would be so gratifying to our good President, as well as to many of the members; but we might have a meeting at some more accessible point, and gain new strength and courage for a trip to the Pacific at some future time. Think about it.

## TABLE TALK.

# A Bogus Process.

Beware.—The following is part of a circular sent from this city to a Western photographer, and returned here for information. It was received too late for our last issue:

"Important to Photographers and Others.—
The undersigned will dispose of a limited number of City and County Rights in the United States for a new process of taking photographs, by which they can be made two-thirds less than the prices now charged, besides much less time is consumed in manipulating than by any other process. This is really a great invention in connection with photography, and is worthy the attention of every artist in the country. For further information, address Crescent Portrait Co., No. 39 North Eleventh Street, Philadelphia."

A photographer of this city, to whom the circular was sent, inquired at the office according to the address given above, and found a gentleman in charge, who had but one specimen to show him, and that he said was "abominable." The "Crescent Portrait Co." is possibly a fraud, as this is the first we have heard of its existence, and its purpose appears to be to operate with photographers at a distance. The picture is said to have the appearance, or be an imitation of "Irish's Crystal Ivorytypes." We caution photographers to be on their guard.

A PATRIOTIC STUDIO .- Since the claims for the superiority of blue and violet light have again been set up, somebody has suggested that the Capitol at Washington be taken as a model for the gallery; that the skylight be set with red, white, and blue glass; that Independence Hall at Philadelphia be the model for a camera, and a reduced copy of Bunker Hill monument be used as an accessory. Of course other appropriate appliances would suggest themselves in the fittings of such an establishment. while the styles of work would take such names as the Washington Medallion and Monmouth Vignette. A model of Old Ironsides could be used for a developing trough, and Delaware dishes for work of all kinds.

It is our impression that the red, white, and blue glass would produce the most approved tint of violet light, bring health, prosperity, and long life to the proprietor, develop in him marked individuality and independence, and exert an influence on his patrons that would soon be manifest in their highly improved physical, moral, and political condition; health and patriotism having taken the place of disease and indifference, under the wonderful influence of violet light in this patriotic photographic studio.

Below are a few examples, from the many we receive, of the encouraging words which indicate that, notwithstanding the times are hard, his photographic journal is not the first thing a photographer can dispense with.

"I have taken the *Photographer* for the past ten years or more, and I find it a good investment. I do not claim to be a first-class artist, but I do credit myself with this fact, that any person pursuing this profession needs all the light that can possibly be thrown on the subject. I often glance over the many works I have, and by so doing re-

fresh my memory, and find out just how much I have forgotten. Your journal is well worth the money, and any artist who declines to take it must grope in the dark.

"F. K. HOUSTON."

"MR. EDWARD L. WILSON: Inclosed find draft for five dollars (\$5) subscription for *Philadelphia Photographer* for 1877. Your journal is too valuable to do without; would not keep house without it.

"J. W. WOLFE."

Gentlemen: Economy is the order of dull times. I have weighed the subject, and conclude that it is not economy to discard your excellent journal. Consequently you will find a post-office order for five dollars for the *Philadelphia Photographer*. Thanks for the two first numbers for 1877.

EMERSON GODDARD.

# CARBON POINTS.

MY DEAR SIR: In response to your inquiry as to whether I have ever had any experience in carbon work, I will state that I have had more of it than I ever care to repeat.

Although not so practically, and may be not so unfortunately conversant with the uncertainities of all carbon processes, I agree with my friends and co-workers as to their unreliability.

Our friend Clemons very much amused me by an account of his interview with a celebrated expert (?), and of how the latter would explain that inequalities of prints were owing to their "not being cooked enough."

Forfend me hereafter from all methods that preclude the use of eyesight, and depend only upon what you might term GUESSWORK.

For further particulars, apply to John L. Gihon.

MY DEAR SIR: The articles in the Photographer in relation to the Lambertype, have been read by me with interest; but it is such interest as a returned traveller feels in the relations of adventure in a land of which, for the present, he has seen enough. Not that I would say I would never again

visit the strange country, but I am not booked now.

It would hardly be fair for me to pass judgment upon Mr. Lambert's processes, seeing I did not perform the practical work on the carbon prints of my firm ten years ago; but I do profess to know something about what is agreeable, and what the public are likely to think agreeable, in photographic portraiture. To my eye, the best carbons, including those now in question, are deficient in delicacy and in depth as compared with first-class silver prints.

As to financial returns, carbon printing was not a success with us; because our customers were not willing to pay what was necessary to cover the trouble and loss then met with in production. The very persons who had seemed most solicitous to secure pictures of accepted permanence would not pay extra prices for the result. Counting the direct cost of wages and material, with a very moderate allowance for time, it would be fair to reckon our loss during the experiments of a year or two in carbon printing as very great indeed; more, I am sure, than any photographer would be likely to go into with his eyes open, unless he were very sure of a good result.

#### WILLIAM CURTIS TAYLOR.

FROM a letter from Mr. Gentile, of Chicago, we make the following extract:

"I come to the conclusion from considerable experience, that it is very difficult to work carbon by developing on a polished surface, but by using the very finest ground glass, and afterwards burnishing, I can get a finer gloss than on albumenized paper, and the transfers can be made easily, without any difficulty at all; however, some, who are working the carbon process, say they have no difficulty in getting off the transfers from polished surfaces.

"C. GENTILE"

On the carbon question, Mr. Kurtz writes as follows:

"DEAR SIR: Your letter came to hand, and I am sorry that I cannot write anything for you about the carbon matter. I buy a great many things in my business, and laying them aside for a while does not condemn them. Mr. Lambert has made

excellent work, in my place, in the hottest summer days; and I would do the same thing, if I had the time to get at it personally. I must state to you, as I have frequently done to Mr. Lambert, that the process (if worked at all in my place) would be mostly used for pictures above card size, and, as far as the financial part is concerned, I do not know the first thing about it.

"W. KURTZ."

# "Bulldozing" Carbon.

DEAR PHOTOGRAPHER: We all know Mr. Webster to be an active, energetic man, who feels strongly and speaks emphatically, and we admire his vim in expression if we do not always agree with his conclusions.

Strong expressions, however, like overloaded guns, often do more injury in recoil than in the intended execution.

Mr. Webster asks: "Suppose you go into this carbon business, what are you going to do? Are you going to say to your patrons this new process is superior to the old, because the pictures are permanent, while those we have been palming off upon you are a fraud?" Permit me to reply that we shall certainly say the new is superior to the old because we believe it, and all evidence of science and experience confirms our belief, but we shall not say the old process is a deception and a "fraud," for that would be false. We shall simply say we have always made for you the best kind of pictures going, using all care and every practicable means to make them permanent, but we have always known with regret that no amount of care would make them entirely so, as want of permanency is an inherent defect of the process; we therefore hasten to introduce the first improvement, giving equal pictorial results with nearly the same practical convenience, and much greater promise of permanence, and the public will sustain us as soon as they understand the question. The "obstructionists" may retard, but they cannot prevent the onward march of progress. Mr. Frank Rowell in telling "about the kind of talk we hear in Boston," strikes the keynote of the whole business.

Permanence will be the watchword to success for carbon workers.

If the public become convinced that carbon pictures are permanant, no photographer will be able to resist the demand for them.

Although the photograph is known to fade, it has maintained its ascendency over the daguerreotype and ambrotype by its greater convenience of production and use, but if carbon pictures equally convenient in other respects are proved to be more permanent, photographs must and will give place to them.

And I cannot see how those who go to the trouble and expense of introducing a new process for the better interests of themselves and customers, even if they explain the reasons for their action, and set forth strongly the advantages they offer, can be said to "bulldoze" their competitors who do not choose to take that trouble.

Furthermore, I cannot see how it is going to give the public an "exalted opinion of the honesty and judgment" of those photographers who have been going on contentedly for years, furnishing pictures that everybody knew were not permanent, yet when a better process in that regard is introduced, start up, and say, "We too can make permanent pictures by the old process if we are a mind to." "It only needs a little more care and a few additional inventions and discoveries, that any of us can make if we try, and our pictures will be just as permanent as anybody's."

Perhaps they can "bulldoze" people into believing that sort of talk; but I think the public, who keeps its "eyes and ears open," will say, "Well, you are frauds, anyhow, by your own showing, and we can't depend on you in anything; we shall go for the new process." Wait and see.

E. K. Hough.

MR. J. B. LEISENRING, Fort Dodge, Iowa, has recently renovated and refitted his gallery. This is a good sign, and we congratulate him on the good reputation he seems to enjoy.

THE Year Book of Photography has been received. It has a handsome frontispiece, and the contents are varied and practical; we have a few copies for sale. See advertisement.

# Editor's Table.

PICTURES RECEIVED.—Carbon prints in cabinet size from Messrs. Gentile, of Chicago, and Broich & Kramer, of Milwaukee. The latter are among the finest we have seen by the carbon process. A card also by the same process, from Mr. Wykes, of Quincy, Ill. For all of these carbon prints we are indebted to Mr. Gentile, of Chicago.

From Mr. I. W. Taber, San Francisco, a number of beautiful cabinets, which he calls "Chromatic Photographs." They are in various tints, all enamelled and raised in cameo. Cabinets also from Messrs. Copelin, Chicago; North & Oswald, Toledo, Ohio; and Landy, Cincinnati, the two latter sending fine portraits of President Hayes. Cards and whole size from Mr. H. B. Hillyer, Austin, Texas. Cabinets and cards from Mr. Isa Black, Franklin, Pa. Cards from Messrs. Charles E. Orr, Sandwich, Ill.; F. R. Burrows, Sturgis, Mich.; and C. A. Sweeney, Lowville, N. Y.

APPLEGATE'S POCKET PORTRAIT—This picture is one of the neatest styles of the ferreotype we have ever seen. The machine for cutting and mounting these can be operated with great rapidity, and no experience is required to run it. See Mr. Applegate's advertisement.

THE PHOTOGRAPHIC SOCIETY OF AMSTERDAM announces by circular an International Exhibition of photographs and appliances of the art, to be held in that city, commencing on the 16th of September. Gold, silver, and bronze medals are to be awarded for various styles of work.

It is with regret we announce the death, on the 4th of March, of Mrs. E. W. Withington, of Ione City, Cal. She will be remembered by many of our readers as having contributed to our last *Mosaics* an interesting article on landscape photography. She had been practicing photography about four years, and was very much devoted to the art. The news was communicated to us by her daughter, Miss Augusta Withington, with whom we sympathize in her bereavement, and recognize her loss as a loss to the fraternity at large.

FELINE PHOTOGRAPHY.—Mr. John L. Gihon, of 1328 Chestnut Street, has shown himself skilful not only with all sorts of human subjects, and the difficulties of the Centennial, as reported in his interesting articles, but also with that domestic miniature tiger, the cat. He puts Tabby in

all sorts of positions, and represents her doing all sorts of things; but some of his best hits are parodies on some of the conventional styles of sitting for photographs, such as sitting with one arm on the table, both arms resting on a table and looking out of a window, etc. They are well gotten up.

REMOVAL.—Messrs. Collier & Perkins, Boston, have removed from their old stand to their new store, 361 Washington Street, where they have a fresh stock of mouldings, frames, chromos, engravings, and photographic materials.

Do not buy from any process man, but send to Mr. Charles W. Stevens, Great Central Photographic Warehouse, 158 State Street, Chicago, and he will send you full instructions for making the oil photo-miniature free of charge. This is a very pretty picture, and may help business.

New Zealand.—We are always glad to hear from old friends, and especially those who are far away. We have just received a letter from Mr. Nelson K. Cherrill, formerly of the firm of Robinson & Cherrill, Tunbridge Wells, England, who has recently located in New Zealand. He writes very encouragingly of his business prospects there, and we certainly wish him a great deal of success.

PHOTOGRAPHIC HALL CENTENNIAL STOCK .-We have been informed by one of the parties who patriotically assisted in building Photographic Hall by subscribing for Centennial stock to supply the funds, that he has been solicited by some party in this city to sell his stock. To such of our readers who hold Centennial stock, we would counsel to hold on to it for the present, as there is a prospect of its being worth considerably more than it now is. It is dependent upon the decision of the Supreme Court in the matter of the one and a half millions of dollars supplied by Congress for the purposes of the Centennial Board of Finance. If it is decided that the Board of Finance is to retain the said sum, of course the stock will be worth considerably more than it will if that sum has to be paid. We learn that the Centennial authorities are sanguine as to the verdict being in their favor, and for this reason we counsel holders of stock not to sell at present. If we can be of service to them after the decision we shall hold ourselves



The publishers have a great many good things in anticipation for the year 1877, which they think will render their magazine more beautiful and more useful than ever before; and while they maintain that the beautiful example of photography, which accompanies each issue, is alone worth the subscription price, still more and more effort will be made to make the reading matter everything that it ought to be. Our correspondents from all the leading centres abroad will keep our readers posted on all matters of interest in their several sections, while our unrivalled staff at home will look diligently after your interests here. To make the Philadelphia Photographer the best practical helper which can possibly be obtained, is the aim and earnest desire of its publishers.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us new ones, the following

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FOR THE PRINTER.

"The Practical Printer," by C. W. Hearn, is a most handy and reliable book. It goes into all the operations of plain and fancy printing in silver, and is full of good. Price, \$2.50.

# FOR CARBON PRINTING.

For those who want to try this interesting process, the "American Carbon Manual" gives the most detailed information. Price, \$2.00.

# FOR THE DARK-ROOM.

Dr. Vogel's "Photographer's Pocket Reference Book" meets a want filled by no other book. Full of formula-short, practical, and plain. Price, \$1.50.

# FOR THE FERROTYPER.

The "Ferrotyper's Guide" is the only standard work. Cheap and complete. 75 cents.

# FOR THE LANDSCAPE PHOTOCRAPHER.

"Linn's Lookout Landscape Photography." Price, 75 cents.

# FOR THE LANTERN EXHIBITOR.

"Wilson's Lantern Journeys," gives incidents and facts in entertaining style about 800 places and things, including 200 of the Centennial Exhibition. Price, \$2.00.

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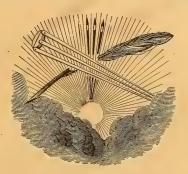
AN ILLUSTRATED MONTHLY JOURNAL,

# DEVOTED TO PHOTOGRAPHY.

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Engineer and Solicitor of Patents.

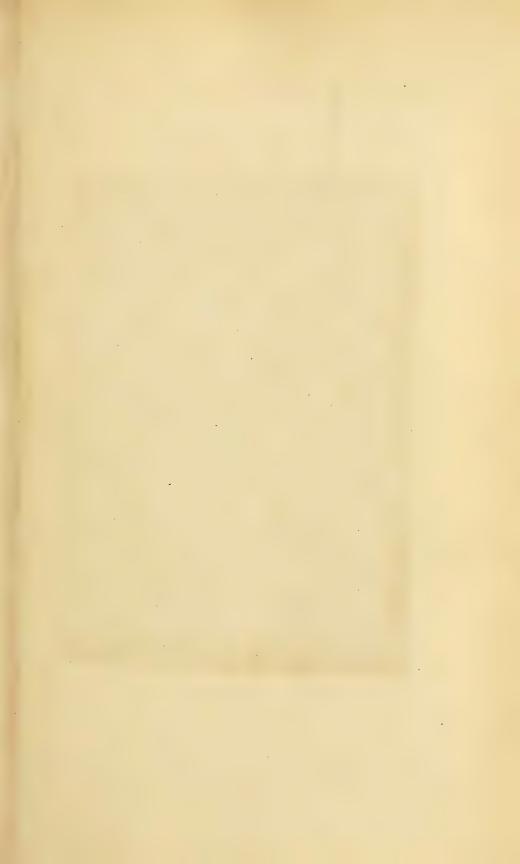
# C. HOWSON,

Attorney at Law, and Counsel in Patent Cases.

# BULLOCK & CRENSHAW,

No. 528 Arch Street, Philadelphia,

MANUFACTURERS AND IMPORTERS OF PURE CHEMICALS FOR PHOTOGRAPHY.
IMPORTERS OF GLASS AND PORCELAIN, APPARATUS, ETC.





# Philadelphia Photographer.

Vol. XIV.

## MAY, 1877.

No. 161.

Entered according to Act of Congress, in the year 1877,

BY BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

# OUR PICTURE.

WE have great pleasure in presenting our readers this month with a landscape study of unusual excellence, from negatives by Mr. S. R. Stoddard, Glenn's Falls, N. Y. We have been obliged to use the negatives from several subjects, as we unfortunately often have to do in order to get enough for our purpose within any reasonable time. We have given them the general title "In the Adirondacks." This was done, however, for the sake of having some suggestive title, and not for the sake of real truth, ·for our readers will notice that two or three of the views are a little distance from the Adirondacks and on the Hudson River, while another is more particularly of Lake George. They all, however, belong to the same class of landscape studies, and are given to our readers at this particular season, when they are rubbing up their lenses, and cleaning up their apparatus, and arranging their studio business, so as to be able to make an early negative hunt as soon as the early leaves of Spring make their appearance. No one, seemingly, knows more fully and advantageously how to prepare for such journeys and how to conduct them than our friend Mr. Stoddard, who has certainly won for himself first-class fame as a landscape photographer. The days when we had to go to the immortal Wilson of Scotland when we wished our minds and

our souls to be stirred up by first-class landscape photography are now over; for we have among us several whom he has no doubt incited to better deeds, who are now his fierce rivals and his equals, and right alongside with him we have no hesitancy in placing Mr. Stoddard, who is not only a thoroughly good photographer, but he is thoroughly imbued with true artistic feeling, as is plainly evident from the examples of work which he sends for our present illustration. Not only this, Mr. Stoddard is quite a famous author, and has written in graphical and humorous style several illustrated works, one upon Lake George, and one upon the Adirondacks, which he publishes and sells to the visitors at these celebrated health resorts, and to the rest of mankind.

How beautifully suggestive are these views of health and life and enjoyment. We have one of Mr. Stoddard's inimitable works before us for the purpose of making some quotations from it, but the subject is too vast a one, and we are forced to abandon it. We will, however, risk one extract from page 116 of Mr. Stoddard's work on the Adirondacks, for the enjoyment of our readers, as follows:

# THE EAGLE'S NEST.

"Where the silvery gleam of the rushing stream
Is so brightly seen on the rocks dark green,

Where the white pink grows by the wild red rose,

And the bluebird sings till the welkin rings.

"Where the red deer leaps and the panther creeps,

And the eagles scream over cliff and stream; Where the lilies bow their heads of snow,

And the hemlocks tall throw a shade o'er all.

"Where the rolling surf laves the emerald turf,
Where the trout leaps high at the hovering fly,
Where the sporting fawn cross the soft green
lawn,

And the crow's shrill cry bodes a tempest nigh-

There is my home-my wildwood home.

"Ned Buntline, author of the above sweet lines, that seem to rise upward like the joyous song of a wild bird, bringing thoughts of wild violets and the fragrance of dewy forests in its train, this strange man, with the blended natures of the tiger and the lark, the tender imaginings of a young girl and the uncontrolled passions of a wild beast, came here in 1856, that he might escape the dangers of civilization, and here had his alternate fierce battles and loving make-ups with his greatest enemy, the bottle. He gave the place and the lakes around the names they now bear, and lived here at odd times."

Too much credit cannot be given to Mr. Stoddard for the way in which he has worked up photography in the particular section which is known as his field of labor. The number of magnificent views he has made is almost numberless, and we believe he is reaping the reward which energy, and perseverance, and hold-on-a-tiveness, and good work, and minding one's own business, always bring. May he long live to continue the enjoyment of his labors.

To those who are ambitious in this direction, we say go and do thou likewise. We believe that the policy of selecting some favorite resort and sticking to it, and working it up specially, is better than tramping around the whole country, making random shots here and there, without any particular purpose. As evidence of this we could name a good many successful photographers who have followed such a plan.

We have already said so much in the way of directions for producing good landscape work that we are hardly called upon to repeat here; it should be remembered that our little book on landscape photography gives full details in that particular style of work, and all our books have more or less instructions on that point, and to them we refer. One of the very best things a beginner can do is to study the work of others, and such studies Mr. Stoddard could supply in abundance; we commend them to you. In the matter of apparatus and chemicals, with an American Optical Company's box, and a pair of Morrison lenses, and with a stock of Hance's White Mountain or Niagara Falls collodion, with everything else in perfect order and of the best quality, we do not see how you could go wrong.

Mr. Stoddard not only made our negatives; he also made the prints, preferring to do so to trusting the work to parties who are not in sympathy with him. On another page will be found an interesting article from him full of useful knowledge.

The paper on which our prints are made is Morgan's H extra, for which Mr. T. H. McCollin, No. 624 Arch Street, Philadelphia, is the agent, and from whom we obtained our supply. This paper has steadily gained favor in the market for the past few years, and now stands with the best. We refer to Mr. McCollin's advertisement.

# Photographic Publications and our Centennial Award.

In whatever direction an effort is made, something is generally added to the world's stock of knowledge or to its position in progress and improvement. Sometimes we improve an old method, or bring about new applications of old principles. Again we are successful in adding some new item to the catalogue of the world's industries, and supplying wants that have before been but inadequately filled or entirely unprovided for.

Over fourteen years ago we entered the field of photographic journalism, in which we soon saw that besides the monthly issues of the *Philadelphia Photographer*, treatises and text-books on the various departments of the art were demanded. This demand we sought to supply, and in doing so believe we have contributed something to the resources and advancement of our beautiful

art. Up to the present time we have published the following works:

Photographic Mosaics, from 1866 to 1877 inclusive, twelve volumes.

The American Carbon Manual.

Himes's Leaf Prints; or Glimpses at Photography.

How to Sit for your Photograph, by Chip. Handbook of the Practice and Art of Photography, by Dr. H. Vogel. (Two editions.)

How to Paint Photographs, by George B. Ayres. (Three editions.)

The Skylight and Dark-room, by Elbert Anderson.

Trask's Practical Ferrotyper.

The Ferrotyper's Guide.

Lookout Landscape Photography, by Prof. Linn.

Album of Lighting and Posing, by L. G. Bigelow.

Photo-Comic Almanac, by Elbert Anderson.

Photographer's Pocket Reference Book, Dr. H. Vogel.

The Photographer to His Patrons.

Pretty Faces.

Something New.

Hints on Composition, by Burnet.

The Practical Printer, by Charles W. Hearn.

Artistic Photography, by L. G. Bigelow. Wilson's Lantern Journeys.

Besides the above we published a companion journal to the Philadelphia Photographer, the Photographic World, during the years 1871-72, and have since 1874 issued a little eight-page monthly called the Magic Lantern. Some of the above works are out of print, but from those still on sale we made up an exhibit for the Centennial Exhibition, and placed it in Photographic Hall. It was probably the only exhibit consisting of photographic publications ever made at any world's fair; it was the exhibit of the only publishing house in the world which publishes, exclusively and so largely, works relating to photography; and it is with some feeling of pride that we print below a copy of the only award ever made for "Photographic Literature."

International Exhibition, Philadelphia, 1876.

The United States Centennial Commis-

sion has examined the report of the Judges, and accepted the following reasons, and decreed an award in conformity therewith.

PHILADELPHIA, February 27th, 1877.

Report on Awards.

Product, Photographic Literature.

Name and address of exhibitor, E. L. Wilson, Philadelphia, Pa.

The undersigned, having examined the product herein described, respectfully recommends the same to the United States Centennial Commission for award, for the following reasons, viz:

FOR NUMBER AND VARIETY OF PUBLICATIONS RELATIVE TO THE THEORY AND PRACTICE OF PHOTOGRAPHY.

COLEMAN SELLERS, Judge.

Approval of Group Judges.

SPENCER F. BAIRD, CHAS. STAPLES, JR., B. F. BRINTON, EDWARD CONLEY, H. K. OLIVER, JOHN FRITZ,

JAMES L. CLAGHORN.

A true copy of the record.

FRANCIS A. WALKER, Chief of the Bureau of Awards.

Given by authority of the United States Centennial Commission.

> A. T. GOSHORN, Director-General.

J. L. CAMPBELL, Secretary. J. R. HAWLEY, President.

#### LATEST FROM THE STUDIOS.

VARIOUS SUGGESTIONS.

Use your old ferreotype plates over again by rinsing them through weak acid, and albumenize the same as glass to take babies' pictures. If the mother is not freckled or of too dark a complexion, let the baby have its face close against its mother's cheek, with mamma's hand on the outside of baby's head, that its head may be held in contact with hers. Try common type-metal for retouching, but do not grind the varnish. If you should become angry, don't let your customers know it; that is, not many of them; they might think you a crabbed man. Take a wet day and clean your windows, shelves,

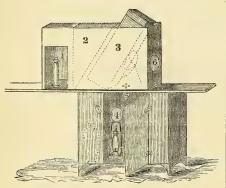
and every little corner; change your pictures on the walls once anyhow in every twenty-five years, or the rising generation may not recognize them; and lastly, but not least, black your stoves and black your boots, and immediately put on a clean col-T. M. WELLS.

#### PLATT'S DODGES.

#### A Great Plague Easily Remedied.

SOMETIMES in using paper that has been too long in the gallery or stock-house, it becomes dry, and will print motley. avoid this, before silvering take a pan or shallow dish, place in it about an inch of water, let it boil, then hold each sheet over it, and steam well on both sides. This will soften the albumen so it will let the silver solution deposit evenly.

How to Warm the Bath in Winter.



- 1. Collodion.
- 2. Ice-box for summer. 3. Bath-box.
- Lantern in warm closet for chemicals. Holes to let heat from closet to upper box containing bath.

To frozen-up photographers I will say, buy you a good lantern and make you a small closet; at night place in it the lantern and leave burning just a little. You will not miss the oil. I fill my lantern only once every three days, and it never freezes up. I have it so arranged to keep my bath warm from the same light, as shown in the design. You will also see how I use ice in summer.

#### To Start a Glass Stopple.

We all know there are several ways to open a glass-stopped bottle. I think I have the quickest way-by means of a wooden

wrench make of hard wood to fit over the stopple. I have had one in use for three years, and never failed but once in starting the stopple.

#### To Save Drippings.

The best way to save drippings from the tablet and plates is to fix a swing cup similar to the chalk cup under a billiard table. I use a common tumbler, so you see I never knock it over as most artists do when full,

#### The Way I use the Developer during Summer.

I decant it with a siphon; have a glasstube in the bottle and rubber outside, so it is always clear. To filter, I put a piece of sponge on the end of the glass tube.

S. L. PLATT.

#### TREATMENT OF THE SILVER BATH. MESSRS. BENERMAN & WILSON:

On page 106 of the Mosaics I find an account of a silver negative bath that would not work, of which some one of the fraternity is to give the cause of the difficulty, which I will do with great pleasure. Take pure snow-water, make a bath 45 grains strong to the ounce of water; keep it in the dark, and iodize with iodide of silver; set it in the dark 12 hours, then filter, keeping in the dark; then add pure nitric acid 2 drops to 12 ounces of solution. Keep it in the dark, as sunlight will spoil a pure snowwater bath. Keep it in the dark.

> Yours, respectfully, PROF. W. BELTS.

#### A BRACE OF SUGGESTIONS.

#### A Good Cheap Tray.

Make a box the size you want your tray out of pine, two or three inches deep (just as you think best), and take of oil-cloth, such as you can buy by the yard, of a dark color, and lay it in your wooden tray that you have made, so that it will be smooth at the bottom, and work it up into the square corners of your tray by folding and doubling until it comes up square and smooth, then double it over the edge of your tray and tack it fast. The corner of the oil-cloth you will have to cut so that you can tack it over the edge, but only cut it down to the top of the tray. If you are careful in fixing and folding the corners, you will have trays for washing and fixing prints in that will last for years, and will never break. I have used them for the past two years, and I think they are just as good now as when made, and only cost me fifty cents each, and they are large enough to wash and fix a full sheet of paper.

#### Scratches in Burnishing.

LET W. H. L. use the following before burnishing, and he will not be troubled with scratches from the burnisher. I was troubled the same way until I had used the following, which I saw in the Practical Photographer. Take as follows: 120 grains white wax, 2 ounces ether, 16 ounces alcohol. Scrape the wax fine and add it to the ether; shake until dissolved; then add it to the alcohol; shake again to mix; when it settles a white sediment will fall to the bottom; shake up every time before using. You can apply it with a sponge or a piece of cotton all over the face of the card and picture. Run them through the burnisher before they get too dry, and they will have a better gloss, and no scratches will you see, and you can use your burnisher hot enough to sizz. Yours, truly,

R. W. DAWSON.

#### TO GET CLEAN PLATES.

THIS is very simple, but its effects are grand. Suspend the plate by means of a hook at the top of the dipper, or by passing a stick through a hole in the upper end of it. There is always more or less dirt (unless just filtered) in the solution, which will settle at the bottom of the dish, where it will do no harm if allowed to remain there. Suspending the plate above it prevents it being disturbed, and save filtering so often. This constant tampering with the bath solution is expensive, and attended with a great deal of trouble and annoyance. You who have not adopted these "wrinkles and dodges," try them a spell, and then let us hear from you in the Philadelphia Photographer. I. B. WEBSTER.

#### HINTS ON LIGHTING.

I HAVE been surprised in examining the work of different photographers to find how few properly understand lighting the subject, than which there is nothing of greater importance.

Your chemical manipulations may be perfect, your camera and lenses the very best, and the exposure just right, but unless the subject is lighted with due regard to age, complexion, position, drapery, etc., you will fail to get good results. A photographer was complaining to me a few days since of his inability to get good effects with brunettes. "I get," says he, "fine soft negatives of blondes and ordinary complexions, but when I expose for a dark face my negatives are hard with strong high-lights."

I asked him how he lighted them? "Why," says he, "I throw all the light on them I can of course."

I suggested that instead of using all the light he had, to close it up and work it as soft as possible.

He was considerably surprised, and said he always supposed that the darker the face the stronger the light should be.

My theory is this: The light should always harmonize with the face.

If it be fair, use a corresponding amount of light. If dark, use it soft in the same proportion, bearing in mind that a soft light is not necessarily a weak one.

If the quality (not quantity) of the light does not harmonize with the face, unnatural contrasts are the result.

If I am mistaken in this, I would be glad to be corrected, and should like to hear from some one better able than myself to discuss this subject.

What photographers need on this, as indeed on all points, is education. Read, read, and think over what you read. Study in particular Bigelow's works on this subject, and photographs by good photographers.

George Sperry.

#### CRYSTALS IN THE BATH.

Mr. Editor: Yours at hand; we may agree with Professor Stebbing about the name of the crystals, and perhaps as to where they originate, but what develops them is, in my opinion, sudden and severe changes from a burning mass to a chunk of ice; that is as severe as I can express it. I never knew or never have found or discov-

ered any traces of it only under these circumstances. I used to use my bath as high as sixty grains, and even as high as eighty, but sixty was the standard at that time, and for silvering paper as high as ninety and a hundred grains of silver to the ounce of water, and with that strength we used to be bothered with these unpleasant visitors. I also observed that there was a greater quantity than in baths of less strength, so you' see that weak solution cannot be the real cause. I have observed also that a bath found in that condition (and cured as per answer in Sphynx) works very fine afterwards, so I do not consider them of any great detriment, only a little trouble, and, perhaps, a small loss of silver; and right here might be asked, about how much do they weaken the solution. Of course as a substance they are very light, appearing almost like down. How can they be dissolved? I suppose in nitric acid and water, half of each, and brought to a boil, but they are no good, and had better be dispensed with. Throw them into the precipitate and let the refiner have them? I guess not; best place for them is in the stove or in the sink-hole. If they go to the refiner, they may come back to you again in the silver. Of course, according to the Professor, it must be so, as they are treated almost by the refiner as above stated, minus the water.

They are readily gotten rid of from the bath, and that makes it all right, but I think by keeping the bath in a warm place where it cannot meet with these severe changes, the feather crystals will not make their appearance.

James O. Merrill.

#### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON. (Continued from page 123.)

I HAVE the desire to make the results of my experience at the Centennial grounds useful to you all. It was deemed expedient to regulate even all minor operations by well-directed systems. No operative was given the privilege of doing exactly that which he chose.

Material, and plenty of it, was furnished

to you, supposed in every case to be the best adapted to the class of work you had in hand. The selection or distribution of all this was intrusted to one gentleman, Mr. George S. Ennis, whose position became in consequence anything but an enviable one. I must credit him with having been uniformly courteous, and will acknowledge that entire reliance could be placed upon his statements as to the condition of any article handed over to us. The invariably perverse disposition of a photographer, however, seems to require that he should become personally responsible for the excellencies or defects evinced by his work, and I will bear witness that considerable grumbling was originated by the necessity of all using alike from stock-bottles, and so debarred from the prosecution of individual fancies or habits. Our storekeeper was intrusted with the care of all the lenses, apparatus, and chemicals. When you asked for a "bath" you were supposed to be content with the receipt of a solution that was promised to work well, but about the constituents of which you were hopelessly ignorant. I have always advocated, in photographic operations, the maintenance of a large quantity of silver solution. Here our friend had the care of an accumulated bulk of at least forty-five or fifty gallons, devoted solely to the production of negatives. He assures me that he has frequently had to weigh out as much as thirty pounds of nitrate of silver per week, in order to supply the demands made upon him from the printing and our own departments combined.

The keeping in order of such bulks of solution is possibly more simple than the constant tinkering of a few ounces or pints of liquid. I was once intimately acquainted with a French photographer whose practice was never to make up more than ten or twelve ounces of negative bath at any one time. He did a large business, and was often obliged to prepare a number of separate batches each day. He used exclusively the flat dishes for sensitizing purposes, a practice that is largely adopted by the most of our foreign brethren. I confess that I am too obtuse to appreciate the advantages of such a system. I always use

an entirely new bath, with the same reluctance that I feel in painting with a lately purchased brush or drawing with a pencil pointed for the first time.

The evaporation of the baths when surcharged with ether and alcohol, the strengthening of them when weakened by use and the constant sunning of them, were the agents employed in keeping up their standard qualities. We used our negative baths at an average strength of from thirty to thirty-five grains per ounce. Argentometers were always at our service; Dr. Pile's volumetric tube is to be preferred, but in case that you are provided with neither, I know of no better method of obtaining the relative proportions of water and silver than of measuring into a test-tube or small graduate one hundred drops of the nitrate solution. Then into it carefully add, drop at a time, a mixture of salt and water (thirty-five grains to the ounce). when no more precipitate is noticeable. The number of drops added to the silver solution will be the number of grains of nitrate of silver in the ounce of bath. We had an excellent sheet-iron oven heated by gas, and used the large porcelain evaporating dish for simmering down the solutions.

I have found that the iron kettles, porcelain lined, or those sold under the name of granite-ware, answer the purpose equally well. They are much cheaper, less liable to breakage, and unless you are obliged to resort to the fusion of their contents you run no risk of the contamination of your solutions.

When an operator did the chemical work necessitated by his negative-making in the dark-room attached to the studio, it was frequently his practice to carry with him to the spot upon which he had previously located his instrument at least four shields, each one containing its coated glass. Of course this was the method adopted only when the exposures were of short duration. To facilitate it a large number of bathholders had to be in constant readiness for service. Boxes were constructed each one containing two of the glass vessels, the one placed in front of the other and separated by a wooden partition. Lids were provided to them. The workman, coating his four plates consecutively and placing each separate one in its appropriate bath, was enabled to remove them all in a sufficiently equalized time to prevent them from showing any marked differences in subsequent effects. During the heated term it was furthermore deemed of service to imbed these boxes in large zinc tanks containing ice packed in sawdust. I cannot recommend the measure as being at all useful. Supposing the plate to be removed from its coating solution at a comparatively low temperature, it would be but a very few seconds before it would be again affected by either the atmosphere or the heat of the camera. During the long exposures of wet plates in immoderately hot weather I suggested the injection into our cameras of cooling vapors by means of the contrivances sold by perfumers. The plan was not given attention, and I have no idea as to whether it would have proved at all serviceable.

Apart from the personal inconveniences attached to the prosecution of photography either in hot or cold climates, I am divided as to an opinion of preferences. I rather think, these remarks being written during the winter, that I now incline to the warm weather.

A brief résumé of the faults dependent upon the use of either defective collodions or baths may not be out of place. The subject is hackneyed, but can scarcely be too often commented upon.

In regard to collodion, do not keep it near a stove or exposed to the heat of the sun. Light will not hurt it, but too much warmth will.

It is a safe rule to select light-colored brands in preference to those of dark hues.

When making it for yourself, you will sometimes find that at the outset it will become of a rich sherry color, but will afterwards bleach to a lighter hue. This generally betokens an acid condition of the "cotton," and the probabilities are that your collodion will have no good keeping qualities.

If you find that you have on hand a selection of samples that you determine do not suit you, you can do no better than to mix them all together and try the result. Sometimes the experiment may be satisfactory.

There are methods by which the component parts of old collodions can be separated and utilized for subsequent use, but as a general thing the magnitude of your operations is not sufficiently great to call for their investigation.

The coating of a glass may merit some explanation. If the size of it is not greater than 14 x 17 inches, I can readily manage the handling of it with my left hand, whilst I pour on the collodion from the bottle held in my right.

If larger than that, it is as well to fill a wide-necked half-gallon bottle with water, in order to make it perfectly firm, and rest upon its top an ordinary india-rubber ball (such as are constantly played with by children). You can now poise your plate upon such a foundation, at the same time controlling its motions with your first finger and thumb.

I know of one very much talked of and quite celebrated gallery in Philadelphia, where the proprietor insists upon his operators flowing a plate after a manner adopted and prescribed by himself. For my own part, I advocate the principles and the practices of a very much more worthily reputed Artist, who declared that so long as the effects were good, he cared nothing for their manner of production. One is very apt to betray habits acquired accidentally; in the first place those engendered by continued practice become somewhat untamable, or at least difficult to change.

The leading fault of the collodions supplied to us by manufacturers is that they are deficient in cotton, and that the film produced by them is in consequence feeble and thin. The remedy is simply to add more cotton, or to leave your bottle unstoppered until evaporation allows the mass to gain a better body.

Too great a proportion of iodides and bromides can be at once detected by the opaque markings shown upon the plate after it is sensitized.

In this case a longer setting of the film is desirable. Defects caused by the insufficient drying of the plate before it is immersed in the silver bath, will frequently not make their appearance until after fixation, and then they appear very much like the same character of blemishes that are occasioned by want of washing.

Too highly salted a collodion will also give us an infliction of our well-known friends, pinholes.

I was considerably annoyed last summer by my experience with these troublesome fellows on several occasions. I had made three or four sets of negatives that, whilst they were wet, I looked upon with justifiable pride. After they were dry, they seemed to have become perfectly riddled with that very inconvenient class of specks, too small to successfully spot out, and too large not to make themselves apparent but with the most careful printing.

Another trouble, hitherto unknown to me, presented itself during the past season. Plates that were turned over into the stockroom would show, after varnishing, sometimes many, at others a few, dense black spots, that would of course print white upon the positives.

It is easy enough for any one versed in photographic lore to ascribe causes for every imaginable mishap, and to authoritatively declare that a certain condition of chemicals would produce the complained of defects. In this case each one of the operators, to whom I submitted the plates, would start up a little theory of his own, so that I finally came to the conclusion that none of them knew anything more of the matter than I did myself. I confess that I did not and do not yet understand it. The fact that these negatives could sometimes be improved by removing the varnish, and subjecting them to slight treatment with cyanide of potassium, seemed to point to improper fixation as the cause. But that idea was completely exploded by thoroughly wellconducted experiments.

We were in the habit of bringing our negatives to the rendezvous in the regular style of plate boxes, bedded upon the bottom with strips of rubber. For awhile the latter were accused of giving off sulphurous exhalations. Unfortunately for the propounder of this fable, many negatives showed the same description of spots that were never incarcerated in boxes at all.

Finally, the water used for the last washing, and then the very atmosphere itself, were held to be the public enemies.

The defects did not make themselves apparent often, and never to any very alarming extent, but still when they did occur, I must confess myself at a loss for a reasonable explanation of their presence.

Other classes of spots or pinholes we were remarkably freed from. Causes for any fogginess of the plates were too well known and too easily detected to give us any especial concern.

I cannot recommend the character of the tops bedded with rubber that are supplied to the wooden boxes furnished to portable bath-holders. The elastic material is of such a nature that it soon becomes decomposed, and seriously affects the sensitizing bath. The boxes themselves are not always constructed in the most workmanlike manner, and I have seen many a foggy streak make itself apparent in a negative, caused only by a crack in the wood of an enveloping bath-case. When you are working in a commodious, well-arranged, and ventilated dark-room, these descriptions of annoyances rarely occur to your notice, but when you travel around with makeshift chemical closets, and open your caboose upon every opportunity in order to get air and avoid the surrounding noxious vapors, you are soon made disagreeably aware of the presence of that which is our greatest enemy as well as ally, light.

NOTE BY THE EDITOR .- Mr. Ennis informs us that Mr. Gihon is in error in a few of the particulars mentioned in his last paper. This should not cause wonder, neither is it material, inasmuch as Mr. Gihon might confuse the methods he is working now with those exactly worked by the Centennial Photographic Company. Mr. Ennis in his notes to us says: "The commercial collodions we used were changed and intermixed to suit our purposes, and our baths were in the same condition for short exposures as for long ones. We never used our baths so low as 25 grains. In hot weather they were 30 grains, but generally 40 grains strong. In all cases the plate was thoroughly coated before leaving the bath, and no particular care was taken to keep it in motion while in the bath, unless in a hurry for it. The collodion for interiors was more sensitive than that used for exteriors. Heat in development was used but once on an underexposed plate on a very cold day. We were always able to overcome the matt silver stains in hot weather. We never worked on Sundays, but all other days we did, with two exceptions: one a very hot one, when poor ventilation in the dark-rooms prevented, and the other a very cold and dry one, when the plates froze during exposure."

#### ALPENSTOCKS.

THE truth of Mr. Van Winkle's sage remark, "How soon our friends forget us," is being verified at present by a good many people, and photographers are no exception. It is really wonderful and strange to see what a disposition there is to discard things which are tried and faithful, in order to take up that which is new, and whose good qualities are vet to be found out. The Alpine traveller will, if he is a greenhorn or a novice, use his faithful alpenstock to help him over the rough places, and up the slippery and through the wet ones, to gain the coveted height, and then when he can see the way clear around and about and ahead, will either break his faithful and tried staff over the rocks, or perhaps send it whistling through the air, to see what fate it might meet upon the crags below, thinking but little of the good which he has derived from it, and thinking nothing of the fact that it may still be useful to him. The old and practiced climber, however, acts differently. only does he hold fast to that which he knows to be good, and which he is almost certain to need when retracing his steps, but upon reaching his destination again, he brands upon the handle of his alpenstock the name of his conquests, one by one, not alone with the spirit of boasting of his own accomplishments, but also to give full credit to that which has assisted him, and in order that others may see the good works which it has helped him perform. Moreover he places his tried and faithful friend in some prominent place in his household, where his

friends may see it, and where he may probably point to it from time to time, when discussing and describing his clamberings. He never forgets when he attains a height that he may have to come down sooner or later, and if he has accomplished a success over which he may exult, his wisdom and experience tell him that the tide may turn, storms may come, and that which helped him to his success may be the only thing which will help him also in his reverses.

Many photographers, however, are prone to act unlike the wise traveller. How often have we in our experience noticed when two have started in one village, with equal prospects and equal chances, and with equal hopes, that the one brighter and smarter and quicker than the other soon reaches ahead and upward, and leaves his competitor behind, although that competitor may have been kindly to him, and even useful in helping him up. But when he reaches his minimum of success he forgets the days when he was a "tadpole" (to use the language of the immortal Mr. Billings), and not only looks down upon his neighbor but utterly ignores him, forgetting, as is too often the case, that he may have need of him in the future. So is it with many of those who have for years made their living upon the silver process. The Giver of all good only knows what would have become of them, had it not been for the very process which they are now calumniating and condemning. It helped them by small degrees to great success and prosperity, until reaching a considerable height in their business, they look up and off, and seeing some other method temptingly offered them, are too ready not only to cling to that which is new, but to discard that which is old and has been found by trial to be true. It is not well, as did our Milesian friend, to let go the rope with both hands at once, even if spitting upon them will enable us to hold on better. It is better to hold on with one hand to that which is old, before we go too far in reaching out for that which is new and untried. We hear photographers, who have become fascinated with the carbon process, declaiming against their old and tried friend the silver method, and calling it not only all sorts of names, but giving it a most horrible character before their patrons, and accusing it of faults which they would not have dared to do a short time ago. why is this so? Why do they, until they have proven what they say is true, let go of that which they know is good, for that which no evidence in the world can be obtained to prove is any better or even as good? Would it not be wise to take a little counsel, and hold on before going too far in this matter? You may reach great heights in carbon printing, but you may need your alpenstock to climb down from those heights, and it may be very comfortable to you to have it to help you on the way. The road to carbon is by no means an easy one; there are not only rocks to scramble over, and heights to climb, but there are crevices, and landslides, and swamps, and ravines, and slippery places to master, and they should not be forgotten. Witness some of them as detailed by a contemporary a short time ago, as follows:

"Reticulation; slow drying, and loss of half tints; the picture washes up from a collodionized glass; streaks and marks on pictures; obstinate refusal to leave the glass; minute shining specks; weak prints; gray color; poor-looking," etc., etc.

Now we do not wish to be understood as meaning that no one should be so progressive as to suspend the use of his old alpenstock and take up a new one, when he is sure that he is doing the very best thing that can be done, but be sure before you do that you are going right; and until you have experimented with carbon (if that is your disposition), and satisfied yourself fully, do not say too much against the silver process, and throw it away with a damaged character, else you may not only find it difficult to get down from your giddy height, but also to ever regain the confidence of your patrons.

#### Mr. Lambert and the Carbon Patents.

Mr. Editor: Mr. Lambert, in a communication to Anthony's *Photographic Bulletin* regarding my remarks on the validity of his patents, published in the March number of the *Philadelphia Photographer*, commits himself to several errors and misrepresentations, which you will please allow me to correct in the briefest possible manner.

- 1. I beg leave to state that I do not represent Messrs. Braun & Co. as agent, and that I never appended my name as such to any writing or publication. It is true, however, that they offered to me the agency for their various carbon tissues, which I declined, seeing no money in it.
- 2. Having been particularly invited by the agents of Mr. Lambert to call on that gentleman upon his arrival in this country, I certainly had no reason to intrude myself on him (he says he had an inquisitive visit from me), nor had I any reason to be "thunderstruck" by reading his specifications, for I knew all about the Swan and Johnson patents.
- 3. I did not come to this country "with the hope of making a fortune by teaching carbon," but I returned to it after an absence of three years as technical correspondent for various Swiss and German papers on the Centennial Exhibition. How little I was then interested in carbon may be learned from the fact, that during my six months' stay in Philadelphia, I only spoke to one photographer about carbon.
- 4. It is true that I lectured on photography, and that I intended to get up a class for instruction in the carbon process and its various applications. But why does Mr. Lambert try to ridicule this idea? Does he suppose he is alone able to carry out such a plan? Then he has to prove first that he is better versed in the literature of carbon, which he evidently is not, for in his list of authors on the subject, to which he seems to have bestowed especial care, he has omitted Vidal, Traité pratique de Photographie au Charbon, complété par la description de divers procédés d'impressions inaltérables. Paris, 1876; Davanne, Les Progrès de la Photographie, Résumé comprenant les perfectionnements apportés aux divers procédés photographiques pour les épreuves négatives et les épreuves positives, les nouveaux modes de tirage des épreuves positives par les impressions dites au charbon au matières colorantes diverses. Paris, 1876; Friedlein, Praxis des Pigmentdruckes nach eigenen Methoden. München, 1876. These are some of the latest and most important works on carbon printing. Moreover, I miss the treatise of Blair, published in 1869 in London.

- 5. With regard to the first trials in transferring carbon prints, I owe my knowledge to the following notice in Wharton Simpson's treatise, On the Production of Photographs in Pigments, London, 1867, page 40.
- "In the course of the discussions elicited in the photographic journals by the publication of Mr. Swan's process, we learn that Mr. Davies, of Edinburgh, had, in the course of experiments in photo-lithography, produced transferred carbon prints as early as 1862, allusion to which was made in a paper read at the Edinburgh Society in February, 1863. A series of circumstances, however, prevented the publication of his process until July, 1864. He then described a method analogous to that already patented by Mr. Swan,\* namely, coating paper with gelatin, bichromate, and pigment, exposure with the prepared surface next the negative, mounting with a solution of shellac and Venice turpentine in alcohol, or with albumen, and then coagulating, soaking until the original paper leaves the gelatin and pigment, and then developing with hot water."

To me, the principle is of vital importance, not the means by which it is carried out, for no intelligent chemist will have trouble in discovering substances or mixtures of such, which will serve as substitutes to either gelatin, india-rubber, shellac or wax. And here, I will only remark that Mr. Friedlein in Münich manufactures and sells transfer papers, which are quite different from those of Swan and Johnson. Now, suppose one uses papers different from those of these two inventors, is he allowed to execute the carbon process in this country without paying a license fee? This question will be discussed in No. 8.

6. I stated that a pigmented tissue had been prepared long before Mr. Swan; true it contained the sensitizing substance, but are such papers not available?† From

<sup>\*</sup> Entered in the Patent Office of Great Britain, February 29th, 1864. Sealed August 27th in the same year.

<sup>†</sup> During this winter, I have kept sensitized pigment tissues active for months, by adding about  $\frac{1}{10}$  per cent. of liquid carbolic acid to the sensitizing bath.

Wharton Simpson's above-mentioned book (page 14), we learn that Poitevin in 1855 coated paper with a mixture of organic matter, albumen or gelatin, bichromate of potash, and a pigment, and carbon was the material with which this zealous investigator made his earliest essays. It is therefore evident that it would not injure the claims of Davies because he had employed tissue prepared by Swan.

7. Mr. Lambert is very much mistaken if he thinks I require lessons in the patent laws of the United States, or any other country, or if he thinks I am not posted in the literature of photography. With regard to patent law, I will only state that I published the American law in German translation. It appeared in 1872 in its second edition under the title, Die Patentgesetzgebung der Vereinigten Staaten von Nordamerika, Leipzig. I was for many years counsellor and expert in patent cases in this city, for upwards of two years examiner of patents in the largest patent agency on the continent of Europe, and a delegate from Switzerland to the International Patent Congress of Vienna in 1873, and quite lately I wrote an essay on the Patent Laws of the United States, for one of the most widely circulating periodicals of this city, which, as I learn, was very well received; I therefore think Mr. Lambert cannot accuse me of not knowing the law. And with regard to photography, I will gladly submit to this gentleman the full and explicit title of any work of which he may condescend to mention the author.

8. Mr. Lambert remarks: "The inventor is protected not from the time the patent is granted to him, but from the very day it is applied for, and any publication of the invention during the lapse of time between the application for and the granting of a patent is no bar to its validity." This is true for United States patents, but does Congress regard an English invention protected from the date of its application for patent? An answer to this we find on page 254 of Whitman's Patent Laws and Practice of obtaining Letters Patent for Inventions, Washington, 1871, which reads as follows: "An invention is not patented in England, within the meaning of the acts of Congress, until the specification is enrolled. The enrolled specification takes effect only from the date of its enrolment, and not from the date of the provisional specification," or "Congress does not consider an invention patented in England, until the Commissioner's seal is attached to the document." Swan's British patent is affected by this decision so far as he cannot claim the principle of transfer in this country as his exclusive property, the same having been given to the world by Mr. Davies one month before Swan's specification was enrolled.

Mr. Lambert finally endeavored to ridicule me, by asserting I did not know who made the laws in England, Congress or the House of Parliament. Poor Mr. Lambert! He simply got muddled up by my quotation from Whitman, but I will gladly pardon him, if he will henceforth study my communications more carefully. But, as my time is also somewhat valuable, and having no financial interest in carbon, I hope Mr. Lambert will excuse me if I drop the subject for the present. Should he or my readers have been induced by the above to examine patents more critically, nobody will be more happy than the undersigned.

ADOLPHE OTT, PH.D.,
Analytical and Consulting Chemist.

#### PHOTOGRAPHIC DUTIES.

BY E. K. HOUGH.

No. III.

THE MINISTRY OF ART.

ART has its ministry as well as religion. Religion and art have come down together, hand in hand, through the long avenue of centuries, and both have been appealing to the noblest motives and most spiritual needs of humanity. Friends and co-workers for human benefit, they have been mutual teachers in a language known and understood of all men, despite the "confusion of tongues."

Christianity has developed art, while art has interpreted Christianity.

They stand together on a plane of human activity far above those who only cater to the animal natures and the animal wants of mankind.

They are the truest measures of civilization, and the most advanced leaders of human progress.

In every structure the broader the base the higher can the apex and pinnacle be carried with strength and security. Ancient art, as among the Greeks, was carried to heights of great perfection in the service of their religion, but as both stood on the weak and narrow foundations of false gods

and favored classes, they fell together into

Christianity has laid its foundations broad and deep in the hearts and lives of the common people, by making every man's house a temple of worship, and every man's conscience a judge of truth, therefore it will stand for ages like a pyramid, with its broad firm base, sustaining the lofty summit in the skies.

So art, to reach its loftiest heights, must develop and educate the artistic judgment of the common people, until the superstructure of artistic production is sustained on the broad foundation of their intelligent esteem.

Photography is now the most widespread and the most active artistic educator of the common people. It is the only form of art that goes into their homes with delineations of the well-known persons and familiar things of their every-day life, shown with such self-evident truth as to command their full confidence, and yet with such admixture of human influence and personal control, as to show them the power of art over even the truth of nature.

Having artistic productions thus brought to their attention in forms about which they naturally feel unhesitating confidence in judging, their artistic education begins. They criticize and compare, judge and discriminate, give to nature more attentive observations, and to art more accurate perceptions; and every one of these is a potent and effective agent in developing artistic thought and feeling, making possible for them to more intelligently judge the highest efforts of art, and more fully appreciate the labors of all artists. Moreover, because they know their productions will be subjected to this more intelligent criticism, and

this constantly improving judgment, all artists are stimulated to more accurate delineation of more noble themes, building securely on this broad base of public appreciation, feeling sure at their loftiest height of being well sustained thereby.

Thus they act and react upon each other for the common good.

You may say how slow this educative process is, and how ignorant of art the common people are. Yes, no doubt, "art is long and life is short," and no one can do much in his single self compared to the grand result aimed at, yet every art-worker helps or hinders somewhat the onward progress, in proportion as he does, or fails to do his duty.

Nature never hurries, but she never rests; all her processes are slow but unceasing; and the great results are only shown after long intervals of time.

Yet the influence of photography in art has been more apparent during a single generation than probably has ever occurred in any other work for human improvement in so short a time.

Christianity has been taught to the world by an army of active and earnest men for eighteen hundred years, yet not one-fourth of the world's inhabitants have any intelligent knowledge of its principles, or the great duties it inculcates. Photography, as a new revelation in art, has been in the world less than half a century, yet all over the civilized world there is probably not a village large enough to support a clergyman but has also a photographer occupied in the silent ministry of art.

Many of these, most of them, are unconscious of their nobility of office, and, like many clergymen, many of them are unworthy of the cause they serve; but many more silent but faithful workers are doing good of which they never dream, are "building better than they know," and "their works shall praise them." Who does not know, if he thinks about it at all, that the ministry of photography in art has had a marked influence in arousing the interest and educating the artistic taste and judgment of the eager thousands who crowded the art galleries at the Centennial, and with more or less intelligence admired

and criticized the art productions shown there; and a yet more marked influence in educating and guiding the artists themselves to greater accuracy and truth; yet neither class would acknowledge, in fact neither fully comprehend how much they owe their teacher.

Photography seems as natural as light and air, too natural to be art, they claim; therefore the public treat it with slight respect, and painters who admire and use it in secret, pass it by in public as of small account. But a large part of this unworthy estimate is the fault of photographers themselves, and may be greatly remedied even in this day and generation. We are brought therefore directly to the question of our photographic duties in that regard, and will treat of them in our next.

NEW YORK, April, 1877.

# MY PRACTICE.

IMPROVED METHODS OF WORKING — A
TANK FOR WASHING PRINTS.

DURING the past two years I have operated in about twenty different galleries, stopping a few weeks in a place. Now, to make the thing practical, for that is just what we want, we will take the whole as one instance, and will call the operator or proprietor John.

Well, John gets a fresh supply of chemicals, and drops us a card to come; he is ready to turn a new leaf. We drop in, take a survey of things generally, and go to work. We find the walls covered with receipts for collodion, developer, redeveloper, etc. Ah, John, too much formula; one is all we undertake to work; that one was published in the *Bulletin* in September, 1874, except we modify it a little.

We clean and scrub the dark-room. On the developing stand, in addition to the ordinary iron developer, we find pyrogallic and citric acid, bichloride of mercury, iodide, sulphuret of potass, and ammonia; all of which we have John carry down and out. Now we weigh out one ounce of fresh iron, which we dissolve in twenty-three ounces of water, add one ounce of acetic acid, and filter carefully. The bath stands at forty; we re-

duce it to thirty grains; collodion, after our old formula, except to every five ounces we add one ounce of plain collodion. Now all things are ready, and the first sitters are called in, and we proceed to the operating-room; here we find one of John's worst enemies, a white side screen seven by nine feet square. We set it behind the background to get it out of the way quickly, and make a small frame two by four feet, cover one side with white and the other with black muslin.

Our subject was a beautiful young lady, light hair and blue eyes. Now, to kill John at once, I turned the dark side of the screen to the sitter, and arranged the light so that an even flow crossed the face at an angle of about forty-five degrees. A plate was sensitized, the exposure given, and John rushed to the dark-room to see a (weak one as he supposed) negative that was sensitized in a weak bath with weak collodion, and to be developed with a weak developer. . But, when the developer flowed smoothly over the sleeping and invisible image, she awoke, and started into life, and kept coming till John shouted, "Stop, or she'll get away!" Now we had the first good negative John had ever seen taken.

Our next subject was a baby eight months old, and full of play, a fond mother, and two assistants; by some mishap, they all got into the operating-room. The baby does all right, but mother—well, the exposure stops at about three seconds. Again we proceed to the dark-room.

This time setting the plate-holder aside, while I warmed the developer up to about 80°, also giving the plate a few minutes between the exposure and development. Again we proceed to develop the image. Cupid came more quickly than John expected, but stopped before quite up to the standard; now I had at hand for the purpose a one-ounce (wide mouth) bottle, in which I drained the plate; by so doing, I caught a few drops of free silver from the edge and back of the plate; with this I proceed to run the development a little further.

"Now, what is to be done?" said John. Never mind, John. We'll wash the little fellow; the negative I mean. In this case the modulation was good, only lacking strength; to strengthen or intensify, as you please, we set it up in the window in a soft light before fixing; after exposing it to light one or two hours, it had the appearance of a negative intensified with permanganate. In this way I treat all my negatives that need any strengthening. By masking or protecting in various ways, any part of the negative may be brought up, gradation in backgrounds, one of a group, etc. In summer be careful to set the collodion side next the window-glass, else the flies will run over it with their dirty feet and speck the film.

Since we are not all able to buy a carbon process, owing to the enormous price, I will give my brethren a simple method of washing silver prints, thus making them sufficiently permanent to last, at least till able to buy something better if such it be. Make a tray eight inches deep, as large other ways as required; make a light frame that will just drop inside the tray; in each corner of the tray place a block of wood one inch square and three inches long, so as to raise the frame three inches from the bottom. Now get a net used for catching minnows, stretch over the frame, and fasten; for very large travs it will be necessary to have several large cords crossing underneath the net, to keep it from sagging too near the bottom.

The use of this apparatus will be too apparent to need further comment.

A. J. SHIPLER.

#### SOME THINGS SEEN AND FELT.

BY I. B. WEBSTER.

No. 111.

In No. I\* we portrayed very imperfectly the condition of things as seen after one year's reign of carelessness. In No. II\* we gave a few points upon the result of renovation. In this number we propose to continue the renovating process. We have seen such great improvements in the effect of careful manipulations in the "light and dark" rooms, that we concluded to continue and go for the printing-room. As in the other room the principal cause of our

trouble used his "walking gun" and got He left everything in confusion. Negatives placed and displaced. Solutions far from serviceable. Wastes scattered and spread everywhere, broken bottles, broken glass, broken negatives in every conceivable place. Soda scattered about the bench and sink, mixed with salt, bicarbonate, and gold. Dishes broken, torn, and dirty. Oh, why will operators, printers, and finishers allow themselves and everything they use to get into such terrible disorder? It cannot be from a lack of knowledge of the deleterious effects upon the future of the photographer, even if presentable work can be turned out. Talk about permanency. The manipulation is what gets it up. There can be no such thing as a permanency where these "antagonistic elements" are brought into such intimate relations. I care not what process is worked, each ingredient or combination must be kept away from the other. Well, what is to be done? It looks discouraging at first, but there being no help for it, we must do something, so we enter the field, and first straighten out the negatives, filing away those we wish to preserve, and passing those to be destroyed into the lye. Then gather up the wastes and put them into the proper receptacle, gather up and throw out the broken glass and bottles, and have a general cleaning up of the room, and cleaning out of all the bottles and dishes used. Reconstruct the solutions, and "Presto, change." Like magic our paper is working all right. Now "go for" your sink and bench. Clear away all that stray soda, salt, etc., clean off and out, as in the printingroom, and we have a clean, clear, and brilliant batch of prints. No one can conceive the difference in the appearance of the prints produced when pains are taken to keep everything clean, and the reverse of that, except he tries it both ways. I questioned my printer the other day as to his use of gold (it seemed to be getting used up very fast considering the amount of work turned out), how strong he made it, and how much he used. "Well," he says, "I dissolve a bottle of gold in that bottle upstairs, filling it about half full of water." "How large is the bottle referred to?" "I do not know." "Well, about how much of that do you put

<sup>\*</sup> See February and April numbers.

into the toning bath for each batch?" "I don't know exactly; I use very little now," etc. The fact is here was a printer working altogether by guess, and there was every tone ever seen represented in each batch of prints. Now this is all wrong. It is very simple and easy to do this right, and for fear others are practicing this careless "guesswork," may I propose to close this paper with a few suggestions upon this point. There is supposed to be fifteen grains of gold in each bottle. Get a tincture bottle, pour fifteen ounces of water in it, and scratch with a diamond on the outside of it showing where the fifteen ounces reaches, which will save the necessity of future measuring. Now add the contents of the gold bottle to this, and when dissolved you have one grain of gold in each ounce of water. The rule is, one grain of gold to each sheet of paper in toning. Now how, easy to go just right in this particular. I have one more point to make, and that is the temperature to which the toning bath is sometimes raised in toning. I have seen it so hot sometimes as to be almost unbearable to the hand. I do not believe this is right, although I have heard discussions pro and con. My opinion is that prettier tones can be made in a bath just about as warm as the hands are. Let the water to be used for toning stand in the sun in moderate weather an hour or two, and it will be just about right. When wanted for use, add the gold and soda the last thing.

#### SCATTERED THOUGHTS.

THIRD PAPER.

BY F. M. SPENCER.

I HAVE read the papers from the pens of John L. Gihon and Mr. I. B. Webster in the April No. of *Philadelphia Photographer* with much interest, especially as touching glass cleaning, and having had some experience with the former gentleman in that line while with the Centennial Photographic Company, I can testify to the truth of his remarks upon that subject. Every convenience money could provide was placed at our hands, except that we had to use Schuylkill water direct from the river, so that none of the impurities had a chance to subside, as it would

had the water been taken from the reservoir; every part of the manipulation was carefully performed, yet we had trouble just as Mr. Gihon says, but I observed that the defects would occur with some samples of collodion more than with others. I have never met with the same faults here, but this winter I found the same enemy at Dushore, Pa, with plates coated with Anthony's negative collodion, while my own worked perfectly free from the defects.

I draw the conclusion that the trouble occurs when the collodion is so porous that the development goes through the film to the substratum of albumen, not otherwise, but at the same time the foundation of the fault lies in the albumen or the water used in washing the glass, and I have not been able to trace the real cause of the difficulty, though I have tried very hard to cage it, but I propose to keep up the struggle on whatever field I meet the foe until I win the battle.

I think Mr. Webster uses his albumen altogether too heavy; one egg to twentyfive ounces of water is thick enough, and many expert manipulators use as much as sixty or eighty ounces of water to one of albumen. I am also unable to comprehend why new glass should be subjected to potash and one useless washing. Where large quantities of glass are needed at a time the method of Gihon's is not to be excelled, provided it can be performed in the open air, for it must be done out of doors or under a hood having a good draft. In twenty minutes I have cleaned as many 14 x 17 and 20 x 24 plates as could be immersed in forty or fifty pounds of commercial nitric acid at one time, old varnished films yielding to the treatment readily and most effectually. After the glass was all in the acid, not more than four ounces of alcohol was added, and in twenty minutes the glass was removed to a tank of water, from which they were taken to the albumenizing-room and albumenized, and no operator could have found out that the glass had been used once or a dozen times for that matter. How many times the same acid can be used I have not yet determined.

Photographers in country towns not supplied with waterworks, who take their water from the roof, or carry it, or pump it up from wells, will find it an excellent plan to tack a fine sponge over the faucet pipe inside the tank. For Lewis's glass baths, and all others where the sides of the holders are so curved that only the corners of the plate can touch while in the act of plunging them or taking them out, make a light-tight box with a hinged cover just large enough to receive the holder, and having a rim just below the hinges. Cut a hole through the shelf where convenient to keep it standing, so that the box will rest upon the rim in a perpendicular position. For holders with flat sides pivots should be fastened on the narrow sides of the box at a convenient point from the top, and the hole in the shelf cut large enough to let it swing upon the pivots; almost any one can contrive to stop and secure it at any desired point. Mr. Webster has explained how to use it.

I have been wondering how the temperature of another summer would agree with Mr. Lambert's process. So much of the last one as he spent here seems to have made him quite bilious, judging by the abuse and libellous charges and insinuations seen over his name in certain photographic journals. It seems to me that if the processes out of which Mr. Lambert is trying to enrich himself are really practical, and possessed of real commercial value to the buyer, he would not need lose his temper, abuse his peers, and deal out stuff that will pass nowhere among intelligent readers as anything but Billingsgate.

Carbon will not fade, but how much carbon in proportion to other pigments does Mr. Lambert use? Are all the pigments used permanent? do the films forming the picture when done ever crack or split and peel off from their mount? Is the gelatin base of the films proof against the agencies of time such as atmospheric and climatic changes? Is it possible with profit to work the process on a small scale? Would your wife know you from a chimney sweep when your pleasant day's work sensitizing and developing is done? Is the processes applicable to all classes of work? If so, will Mr. Lambert please reproduce Mr. Gutekunst's mammoth panoramic view of the Centenn nial grounds in carbon?

What have the partnerships or business transactions of Mr. Wilson or Dr. Vogel to do with the merits of Lambert's processes? These are all questions that naturally arise to one "not blind but cautious," and, if personal matters go to make any factor of the merits of the processes, will Mr. Lambert tell us what essential feature of the whole five patents cost him a single mental pang to give it birth? It was not stillborn I trow.

I did not get my March number of the Philadelphia Photographer until it was too late to reply to Mr. Hough's criticism on my article in Mosaics for 1877, in time to appear in the April number of this journal. I devoted to the article a part of one evening in writing it, and without revision I handed it to Mr. Wilson the next morning, and, whether the compositor may have changed the position of the italicized words or not, I need not say, I had a proof-sheet furnished me, and returned it to Mr. Wilson without meddling with the terms or words referred to, and I suppose they stand so until this day, and I have not yet arrived at any desire to make any change. I think the outline of a figure, a face, feature, or any object is understood by everybody to mean the external or boundary line, and a detail to mean a minute portion or particular. If there be no minute portion, no particulars, in the outlines of an object, then Mr. Hough's view may be correct, but if it be true that outlines are made up of minute portions, and I so understand it, then the one flaw in my article in the Mosaics alluded to is just no flaw at all, and the logical conclusion to be accepted is that if all the details of the pictorial representation of an object are true and correct, the outlines must be so; since the minute portions of them, and all the internal lines and modelling terminating in the outlines are correct, the outlines will be correct, and may fairly be said to have "taken care of themselves." If Mr. Hough's remarks touching the merits of the article under consideration be complimentary, they are accepted with humble satisfaction; if a suspicion of sarcasm lurks therein, I can only "forgive as I would be forgiven," and in return I would say, that I have been much interested and benefited by his writings, and hope he may long live to flourish a vigorous and graceful pen.

April 9th, 1877.

## Landscape and Architectural Photography.

BY S. R. STODDARD.

I HARDLY know what to write in response to your request for an article to accompany my picture in the Photographer. I can understand that it may be policy to conciliate the process vender occasionally, when he can be bought for less than it would cost to prove him a fraud; to propitiate the man of patents, if it will thereby increase trade; even to smile sweetly while your heart is breaking, and "hedge" as gracefully as possible when the distributer of "territory" afflicts your neighborhood. But there have been such overpowering masses, avalanches, loads, so to speak, of theoretical, algebraical, and geometrical deductions, poured out on the defenceless heads of a long-suffering fraternity, that I almost fear to venture, for I sometimes wonder the victims do not rise in their might, and sweep the entire race of "instructors" from the face of this practical earth. Soberly speaking, I have felt that "instructions for beginners" were often of a nature only to be understood after the point was reached where beginners could do without the instructions, and if it displays a lack of scientific accomplishments to make the acknowledgment, I must still say that I write my formulæ in the commonest kind of English, and aim to simplify the work to the extreme of simplicity.

#### THE GLASS

Is cut the required size, and allowed to remain in pickle (1 quart sulphuric acid to 1 gallon water) for two or three days, then washed under a tap, albumenized (solution: white of an egg to about 24 ounces water), and set on edge in a rack to dry. When dry it is marked in one corner with indiaink, to show which side is coated, done up in dozens, wrapped in two thicknesses of paper, and securely pasted to keep free from dust, then stored away for future use.

#### THE BATH

Is made up to test, 45 grains of silver to the ounce of water, enough collodion added to cover the largest plate used in the given quantity of solution, and all placed in the sun to purify. When clear, filter and use.

#### COLLODION.

		10	ounces.
		10	6.6
m, .		100	grains.
ın, .		20	. 44
	about	100	4.6
	m, . m, .	m,	m, 10

(I usually keep on hand one or two kinds of standard collodion, to use in case mine fails to work.)

#### CAMERAS.

I prefer for stereoscopic work the "Z Success" camera, manufactured by E. & H. T. Anthony, of New York. There may be others as good, but this meets all the requirements, being light, compact, and strong. Size of glass, 5 x 8 inches, for single plate or stereo. Single swing, sliding front, can be used vertically.

#### LENSES.

I usually carry four pairs, varying from 2½ to 10 inches focal length, for stereoscopic work, and a 10 inch Morrison for single views, each fastened on its separate front, fitted to my camera, and all contained in a light wooden box with space for each. This box I carry in my hand to each point of view, and select lenses to suit the subject, invariably choosing the longest-focussed instrument that can be used in the prescribed limits, as wide angles fill the foregound with unimportant objects, and dwarf stately mountains down to insignificant lines.

#### FOR LANDSCAPES

I prefer single (achromatic) lenses, as the slight curvature at the margin is ordinarily of no account, and more than compensated for by the greater sharpness and detail obtained. They are also (when perfectly clean) free from a trouble which sometimes goes with the very best of combination lenses, a centralization of light, and a fuzziness at the edges where a dark object is brought against a strong light. Some of my best work has been produced with a pair

of object-glasses taken from an ordinary opera glass (3 inch focus), mounted in rigid settings, and properly diaphragmed in front; of the same nature is the "E. A." (Anthony) lens, 10 inch focus, and an intermediate size of the same make.

#### FOR ARCHITECTURAL WORK

Something better is needed, and found, in the "Morrison" and "Dallmeyer" wideangle, rectilinear lenses, which take in an angle of nearly a hundred degrees; they are expensive but invaluable and perfect in their way; in my mind there is little choice between them, and an outfit would be incomplete without a pair of either one kind or the other, 21 inch focus for confined situations, interiors, or mountain gorges and waterfalls, such as I have often found among the Adirondacks. Of course, the rule requiring as long a focussed instrument as possible, holds good and applies with even greater force to architectural subjects, but this smaller kind of lens is often necessary for field work simply because a single lens cannot be found of sufficiently wide angle.

#### FOR INSTANTANEOUS WORK,

A pair of portrait tubes, thirds or quarters, are best. I have used a pair, 4 inch focus, manufactured for the trade under various names, but called by Benjamin French & Co., of Boston, their "new stereoscopic lenses, imitation Dallmeyer." They are good for groups, heads, etc.

#### TRIPOD.

For light work I made a tripod of ash, 4½ feet long, turned in a lathe, 1§ inches thick at its largest and tapering gradually from centre to bottom; it was then split in six pieces with a fine saw; the pieces, when smoothed and bound in pairs about half way up, formed a round bundle which, fitted with a light top of the ordinary viewing pattern, is nearly as firm as the clumsier article, and, when folded, but little heavier than a large cane.

#### FOR TRAVELLING

By rail, I have two small trunks padded for chemicals, glass, etc.; the dark-box we can carry in one hand, or if necessary to put in the baggage car, I find that a silver half or quarter dollar laid on top of the box is a much better protection than rubber corners.

For going about the country I have a roomy carriage, for one horse, with top (the carriage not the horse), and rubber blanket fitted over the dasher coming in front nearly up to a level with the eyes; one also from the seat extends back over the ample body, where everything can be kept dry and secure even in the severest storms.

#### THE DARK-BOX

Is secured at the back end, resting on a light iron frame or boot similar to those on the rear of stages. When driving, the box is closed and carried upright; when work is to be done a strap is loosened, a part drops over back at a proper height to be worked handily from the ground, the top is extended, and we are ready for work; the same box can be taken from the carriage by simply loosening a nut. It has solid legs (two of them regulated by set screws, as I do not like the tripod arrangement for the dark-box, it's tempting Providence too far), and straps for the shoulders, by which it can be easily carried.

#### ASSISTANTS.

I do not attempt to work alone; have found that the hours of suitable weather in the course of the year were too few to waste, and, of course, all work done under other than favorable conditions is a clear loss. I attend simply to the camera, carefully selecting points and making all exposures; the dark-box is in charge of Charles Oblenis, who has been with me several years, and to whose skill and careful manipulation is due no small share of what you have been pleased to compliment in the results obtained.

Arrived at the place to be covered I secure the services of some boy, sometimes two, choosing one who looks as though he was wide awake, and with an extra inducement for quick time set him to running with plateholders between the camera and dark-box. You who have climbed hills or "scooted" across fields under a hot sun to make a distant exposure, perhaps to find your tripod upset by a passing breeze, and returned with the plate to plunge your head

into what, in your then condition of blood, seemed as hot as an oven, and about as dark to your contracted pupils, and in the end spoil the negative in consequence of your unstrung nerves, will bless and appreciate that boy; and when the work is done and you look at that boy, covered with dust, and perspiration, and glory, and silver, you cannot refuse him good pay for his day's work, and your own work will be better, too, for you have kept a clear, cool head at your work all the time. We use three or four plateholders, they often passing each other on the way to or from the camera, and where long exposures are necessary one is often prepared and ready to be exposed immediately the other is taken away. After developing (1 ounce protosulphate of iron, pint of water, and acetic acid to make it flow easily), the negative is flowed with

#### PRESERVATIVE,

Composed of 2 ounces glycerin, 4 ounces acetic acid, and 10 ounces water, and placed in a negative box to await further action. This

#### NEGATIVE BOX

Is made of sheet copper, 9 inches high, 6 inches one way, and deep enough the other to allow 5 x 8 negatives to slide easily in separate grooves, made of strips or troughs of copper soldered fast, and affording space for thirty-two negatives. When through with the day's work, or sooner if necessary, the negatives are removed, washed, fixed (I use cyanide), washed again, and placed in the ordinary wooden negative box. I place a strip of wood across the bottom of the copper box to lift the negative above any of the preservative that may gather there, and guard against a possible stain. The cover shuts over the upper edge and is lined with rubber to make it tight, fastened with a hasp and wooden pin. In this manner they may be kept several days without drying, and entirely does away with the necessity of carrying water.

#### REDEVELOPER.

If weak I place the negative (at any time after it is dry and in daylight) back in the bath for a few seconds, then redevelop with ordinary iron developer, about one-half the usual strength, adding a little more acetic acid if it crawls when poured on.

After varnishing I cut my stereo negatives, and fasten on other glass at the edges with gummed paper, placing the right-hand picture on the left side, to save the trouble of transposing the prints in mounting.

#### THE NAMES.

Secure fine writing paper (the kind known as "onion skin" I have found best), have the names printed with the best of black ink, and all the type will bear without filling up (and by the way the type should be new and clean, at least not worn round at the edges); let this get thoroughly dry, then cut out close to the letter, lay on the negative face down where it is designed to go, and with a small brush apply at the edge some kind of adhesive medium which will flow readily under the paper, make it transparent, and at the same time not disturb the surface of the negative or of the letter. I have found Diamond Varnish the best thing so far.

The negatives I keep in long grooved boxes set up one on the other like shelves. Each negative is numbered from 1 up, and has its corresponding place in the box. I have a large book containing the views arranged in numerical order (extremely handy to select from and in making out printing lists), and large cupboards with pigeonholes arranged in the same way to contain the finished pictures.

I find I have covered considerable paper and hardly mentioned the subjects illustrated. Most of them are in the heart of the Adirondacks, that comparatively unknown 2500 square miles of almost unbroken forest lying in the northern part of New York. If you want to know more of the region, send 50 cents to the publisher of the Photographer\* for The Adirondacks Illustrated, or what is better still, go there, and in nature's solitudes, on its lily-flecked ponds and winding streams, threading the maze of dusky trails, or breathing the free air of its naked mountain-sides, gather new strength and inspiration for future work and well-earned triumphs.

<sup>\*</sup> Send it direct to Mr. Stoddard .- ED.

#### GERMAN CORRESPONDENCE.

Violet Light in Ateliers—Intensifier with Salt of Lead—Photography in the Human Eye.

I see there is again some sensation about the new invention of Mr. Scotellari of applying violet lights in the atelier. It is always good when some new idea keeps the photographers in agitation, but it is a pity when such a new idea is nonsense.

Mr. Gaffield has spoken about this matter in a very plain and unambiguous manner, and has irrefutably shown by his experiences that the transmission of beams through a violet glass is of less chemical effect than through a white one. But there can be made the objection that Mr. Scotellari uses no violet glass but a violet varnish, and that is in fact a great difference. The ordinary violet glasses are strongly colored with manganese, which produces in the glass no color of a clear spectrum-violet, but a mixture of blue and red. Through those glasses but very little of the clear violet of the spectrum is transmitted. The result with Scotellari's varnish may possibly be quite different. I had no chance yet to examine the same spectroscopically, but probably it contains some kind of anilin violet, perhaps methyl violet, which in fact transmits the chemically effective light a great deal better than violet glass. According to that, Mr. Gaffield is perfectly right when he says it is impossible "that cutting off a portion of chemical rays by violet screens can shorten exposure and give more rapid chemical action."

And Mr. Gaffield is so much the more right, as indeed the most chemically effective light is not at all the violet but the indigo blue at the line Z of the solar spectrum. I made several hundred of spectral photographs, and am making them yet; but in all these works with bromo-iodide of silver, it was to be noticed that indigo-blue very near Z had a stronger effect than violet. And now at last this matter has been examined by the committee of the Photographic Society at Paris, and one point is fixed, namely, that no shortening of the time of exposure under violet light can be noticed.

The committee worked in an atelier where half of the glass wall was covered with the violet lac, and has found out that the exposure on the side of the atelier with violet glass required just as long a time as on the side with white glass. And, after all, it seems as if violet light would be just as good as white light.

But the matter can be explained in the following way: Suppose we have an atelier without any curtains, one half with white, the other with violet glass. A person sitting in the violet part turns the face towards the white part, and receives, of course, a white front-light. But the person sitting in the white part turning the face to the violet part, the latter receives a violet front-light.

In the first case we have violet side and top-light and white front-light; in the second case, white side and top-light and violet front-light; and it can be easily seen that the result, under these circumstances, would be the same.

Some time ago I had a chance to report about the lead strengthening of Eder & Toth. In this method now some modifications are made which prove excellent for strengthening negatives of drawings where a thick cover is required. The plates should not be overexposed, in order to have the lines as clear as possible, and developed, after which they are to be fixed immediately and washed thoroughly. As a test of good washing we may let fall a few drops from the plate into a small quantity of a very weak solution of iodine tincture in water. When the solution does not discolor, the plate is clean. Then we have to lay the plate for about ten to fifteen minutes in a filtrated solution of 4 parts of nitrate of lead and 6 parts of red prussiate of potash in 100 parts water. It turns therein to yellow-white, and consists now of ferrocyan-lead and ferrocyan-silver. plates ought to be washed very clean, and may then be treated in several ways: 1st. By pouring over them a solution of 1 part bichromate of potash in 10 parts water. This solution we have to mix with onequarter of its volume of ammonia.

By this the white negative is changed into a yellow chrome-lead picture. Such

plate seems to be very thin but covers very good. We receive yet a better cover when we, 2d, add to the solution of bichromate of potash the same quantity of ammonia or a little more. Then the plate changes into chrome-red, and this cover will answer in the most cases. But if we wish an entirely untransparent cover, we have to pour over the plate, after placing it in the lead solution and washing, sulphuret of ammonium, which will turn it entirely black and untransparent. Strengthening by the latter is only necessary for photo-lithography. This strengthening is made use of by my scholars and by myself, since the last half year, with the very best success. But it is necessary that the collodion and silver bath work very clear, otherwise veiling will be produced. In order to receive very clean plates I usually add to 80 c.c. collodion one drop of nitric acid. Also it is important to wash the plates thoroughly after fixing them and taking them out of the lead bath.

Since some weeks the topics of conversation in photographic and literary circles are about some great discoveries in physiology. Parisian friseurs and coiffeurs are usually recommending their oil for the growth of hair with the following phrase: A discovery of immense importance has been made. The natural laws of the growth of the hair are revealed. And then follows the praising of the new hair-oil.

But I have not to advertise a hair-oil, neither a photographic receipt, but I have to state only the fact that the natural laws of sight are discovered, and that after the discoveries of Boll and Kühne the sight of the eye is a photographic process. We have in fact a light, sensitive cover on the retina of our eye, the sight-purple. On this there occurs a photographic picture while looking at something, and therefore every person is a photographer, though no one knew anything about it.

Boll has proved that there is existing on the retina of the eye of each animal, of course of man too, a purple substance, which in the light soon disappears but always regenerates, that is, renews itself by the process of light. In a yellow light the sight-purple is not changing, and Boll could on that account, in a yellow sodium

light, better examine the relations of the same. He says: "We must imagine that while looking at something always some sight-purple is destroyed, and by some process renewed again, about which Boll has expressed his suppositions already."

Mr. Kühne succeeded in discovering that the reproduction of this colored substance was the result of the contact of the retina with its natural underlayer. Among other proofs of this fact, he succeeded also in partly taking off the retina, bleaching it under the effect of the rays of light, and then, after carefully putting the bleached retina on its natural underlayer, saw the purple appear again after some minutes. Mr. Kühne succeeded repeatedly in this regeneration of the sight-purple, but it occurs only in a live condition. If the underlayer of the retina lost its life, the bleached purple does not color again.

After these facts it was to be expected that we would succeed in the fixation of the little pictures which by exterior objects are produced on the retina of the eye.

The first positive success in this direction Mr. Kühne had on January 15th. Afterwards he succeeded with a whole series of favorable results in photographic trials, of which we will describe only one.

A rabbit, after being excluded from the light for about five minutes, was placed in live condition towards the only window of a room. The distance between the cornea and the illuminated first row of windowglasses was 1.75 metre. After an exposure of three minutes towards the cloudy sky, the rabbit was decapitated, the eye taken out immediately, opened in a yellow light, and put in a solution of alum; and two minutes afterwards the other eye in the head was exposed to the window and treated in the same manner as the first one. Upon examination of the upturned eye-bottom no impression could be seen on the fine rosecolored, moist, and shiny-looking surface. But after remaining in the alum solution for twenty-four hours, the result was astonishing. The back of the retina of that eye, which was sensitized in live condition, showed only a faintly visible impression, but that of the eye exposed while dying, gave the complete picture of the window, with six square panels and one glass cut round at the top, white on red background, with sharp red cross-work of the window. The picture showed downwards some perspective shortening of the upper row of the window-glasses and the arch of the window.

Plainer yet was the trial with the head of a just decapitated rabbit, which was kept with one eye directed upwards to the top-light of the laboratorium for about ten minutes, after which the head was turned and the other eye exposed the same length of time. After remaining for twenty-four hours in a 5 per cent. solution of alum, there were to be seen the most excellent pictures of the framing of the top-light on the exterior side of the retina of both eyes.

This discovery is wonderful enough, but for photography one thing is of special importance, namely, that the sight-purple is evidently a substance of astonishing sensitiveness. Our eye can distinguish very easily all details in the darkest corner of a room in a moment, while in photography it takes an exposure of hours to receive a poor picture.

The discovery of the sight-purple will lead perhaps to some other discoveries of substances very sensitive to light, which may be of great advantage to photography.

Very truly yours, H. Vogel, Ph.D.

#### CARBON CORRESPONDENCE.

E. L. WILSON, Esq.,

Editor Philadelphia Photographer.

Dear Sir: It is a well-understood fact that there is no counsellor like an editor when one is in trouble. He always knows how it is himself. And being at the present time all torn up in my calculations I fly (metaphorically) to your sympathizing bosom for relief. Not only is my confidence in the wonderful carbon process leaking badly, but I fear the whole bottom has fallen through itself. The bewitching style of its advertising literature has so fascinated me that I came very near being thoroughly converted, and I was about ready to get up a corner in carbon rights. My only fear was lest Jay Gould should take in the situ-

ation and get in ahead of me. You know the advertisements state that these rights and secrets would be sold at \$100 if bought now, and at \$150 a month or two ahead, and in six months they would be \$200. And it was always asserted that everybody had got to have one, and those who bought it first would make a fortune before the sleepy heads got their eyes open. Of course some would forget to buy them, for there are always sleepy heads, and so if I could get hold of these rights, why it would be better than corner lots in a Kansas prairie city. To be sure he wanted gold, but no one could ask him to sell a process for such a durable picture and take such trash as United States Treasury bills. What would greenbacks be good for a thousand years from now, while this carbon picture, as I understand it, will last forever? Why if one of them should be dug up six thousand years from now, in the ruins of Philadelphia or Cincinnati, every half tone would still be perfect, and all the shadows cool and transparent, while across the bottom would flash out clear and bright the mystic "Lambert." You see at once that a right to make such a picture as this would be a good thing to have in the house. It would be so handy to pawn.

Well, I had got enough ahead to buy between an eighth and a quarter of a right, and was nearly ready to bull the market and squeeze the shorts, when I learn that the bears have got ahead of me, and there is a rapid decline in carbon stock. Those cursed bears spoil everything. One of our customers reports that he bought a good sound right for \$20. Said the agent (he called him a peddler, but that is too shocking to repeat), called on him and seemed to be hard up (as though such a thing could be possible), and took what was offered him. To be sure he had made none yet, and did not know as he ever should make any, but as he had got to have it he thought he had better pay \$20 than \$200, and I suppose he is right. Another of our customers tells us that he was offered a "right" for \$15 (101 cents on the dollar), and nothing said about gold either; would take fractional currency. Shade of Daniel Drew, can this be so? I immediately rushed out to see how the for-

tunate purchasers of the "rights" in this city were getting along. It seemed cruel that they should by such a fortunate purchase snatch the sandwiches from the mouths of babies whose photographic fathers did not buy. But "sich is life." My pity for the aforesaid babies was soon relieved when I learned that not one that I saw was making carbon pictures. The first said he would not work it under any circumstances. The next said he wanted to make a few experiments with it after the hot weather was over. The next informed me of a strong probability that Charley Waldack might come back from Belgium and set up a printing establishment and print for the trade. Charley knew all about it, and worked it successfully. He thought it was the picture of the future, and I believed him (but he did not say how many thousand years in the future). Now I see the names of all these men in the fascinating advertisements as approving and indorsing the carbon process. Jewrewsalem!

Well, I have concluded not to buy for a few days, and thought I would write you first. And sometimes I get to thinking, what if Wilson is right, and this process cannot be worked and is of no account! What if Lambert should suddenly be called home. There is a splendid opening for him there to make saddle covers of carbon. It is so durable it would outwear hogskin, and then the soldier could have a picture of his lady love mounted on his saddle. How such a saddle cover would inspire him when he was mounted, and gracious, how he would fight! This is my invention, and I do not intend Lambert shall get a patent on it either. But what if he should go away, and what if we should see a row of disconsolate photographers standing on the shores of the Atlantic mingling their briny tears with the briny deep, and calling for Lambert and their gold? If such a thing ever should be seen there would be one comforting thought. They could not blame the editors or stockdealers.

Lambert is a photographer. Gentile ditto; Wallin ditto; in fact all the wholesale dealers are ditto. It's a brotherly arrangement among themselves, and we can look on and enjoy it. And if we listen we

may hear something drop before long. Do you think I had better buy?

Yours truly,

W. D. GATCHEL.

CINCINNATI, April 12th, 1877.

P. S. What is the difference between Lambkin and Lambert? If you do not readily see it you might refer it to H——d, of Cincinnati. M——n, Lexington, and perhaps others might help you out.

W. D. G.

P.S. No. 2. Perhaps the above is not a conundrum after all. W. D. G.

P. S. No. 3. The answer may be something about shearing. W. D. G.

Our office imp suggests that one brings you money for his fleece, and the other fleeces you for your money!—ED.

#### CARBON POINTS.

The historian in the year 3000, in referring to photography, will doubtless speak of this as the carboniferous period!

A CONUNDRUM.—Will some kind friend in St. Louis please tell us who is the licensee for the Lambert process in that city? We understand there is no one, but we may be wrong.

A REQUEST.—Will the licensee of the Lambert process in Indianapolis, Indiana, be good enough to inform us as to his success, if he still lives?

SOMETHING STRANGE.—That all the territory of the United States has been "sold," and yet there are numerous advertisements offering the Lambert patents for sale in many States. Query: Are some of the licensees finding out the truth of what we have said, and disposed to sell out?

HAPPY.—Some of our old and tried subscribers who left us because we did not warmly advocate the carbon process are returning to their old love. Come back, brethren; we are willing to receive you. We have kept some of your alpenstocks for you, and will send them up if you cannot get down.

#### SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday, April 5th, the President in the chair.

The minutes of the last meeting were read and approved.

Mr. Henry J. Crump was elected to membership.

A letter was read from Mr. McCrea, of the Pennsylvania Railroad, acknowledging the receipt of some views sent to him by the members who participated in the excursion on this road in June last.

On motion, it was resolved that a standing committee on outdoor meetings be elected. The Chair accordingly appointed Messrs. Barrington, Seiler, and Dixon, to serve as a committee to report at the next meeting.

The President exhibited some prints of satisfactory quality made on Richardson's ready sensitized paper which had been kept since August last.

Mr. McCollin exhibited a small camera of French manufacture, fitted with lens, holder, and tripod.

Mr. Carbutt laid upon the table some photo-mechanical prints in fatty ink, made by a collographic process of his own devising, and which he has only recently commenced working. They were examined with much interest by the members.

Dr. Seiler said that he was very much gratified to see such excellent prints of collographic work produced in this city, especially as he had had considerable trouble in finding an establishment in this country that would make satisfactory prints of microscopic negatives. None of the processes of which he had received samples reproduced the half tones and finer details with such fidelity as was exhibited in the prints shown by Mr. Carbutt. He also remarked that the "grain" was very much finer in these than in any of the plates made in this country.

Mr. Pancoast exhibited some highly successful prints from negatives on the American Collodio-Pellicle Emulsion.

A recess was now taken in order that some lantern slides might be exhibited. The Secretary exhibited some fifty views made by himself in Belgium, Switzerland, and France, during the past summer. The slides were principally wet collodion reductions from negatives  $8\frac{1}{2} \times 6\frac{1}{2}$  inches. The remainder were dry-plate contact prints from stereo negatives. A series of colored views of the Centennial Exhibition was also shown, and in conclusion Mr. Carbutt, who had charge of the lantern, exhibited some gelatin slides from negatives made in the East Indies, and a series of the Union Pacific Railroad.

After a call to order, it was resolved that a vote of thanks be tendered to Messrs. Wilson and Wallace for the loan of their slides, and to Mr. Carbutt for his management of the lantern and exceptionally fine limelight.

A suggestion was made, that a public exhibition of slides be given during the coming month. On motion, the Chair appointed a committee, consisting of Messrs. Wilcox, Corlies, and Wallace, to make the necessary arrangements, and notify the members of time and place.

#### PHOTOGRAPHIC NEWS.

THE Glasgow photographers are preparing to oppose the extension of Swan's carbon patent, seemingly determined to prevent its reissue if possible. If this is successfully done, photographers abroad may make carbon prints without any interference with the so-called Lambertype patents, or the patents owned by the Autotype Company. We presume that a similar obstruction will be placed in the way of the patent in this country, though if it is refused abroad it will no doubt be refused an extension here. matters but little, however, as we doubt if the patent will ever be of any particular value to photographers of this country; its future here, to say the least, is limited and an up-hill one.

WE are requested to speak again in unqualified terms of "Hance's Bath Preservative," for the entire subversion and rooting out of pinholes. Five grains of this preservative, added to a bath of half a gallon, will prevent all pinholes. It is positively guaranteed not to produce crystallization, as is the case when using or creating other sulphates of silver. It is entirely soluble, and will work sure.

DR. NICOL describes, in a letter to the British Journal, the very large photographic establishment of Messrs. G. W. Wilson & Co., in Aberdeen. From all accounts it must be a splendid establishment, which none could doubt after having seen the beautiful work of Mr. Wilson, which is well known in this country. It is only another confirmation of what we have so often said, that good work will tell, and not only this, but will bring prosperity and competence to its producer sure.

M. Ducos Du Hauron, of France, has recently filed a specification for a patent for photography in colors. The specifications are immensely long and comprehensive; we fear more so than the practical product of the same.

Photographs in natural colors are among the things which we beg to doubt the existence of until we see them.

A NEW LENS.-Messrs. Voigtlander & Son, the eminent opticians, will soon introduce into this country, through their agents, Messrs B. French & Co., of Boston, a new double objective of great illuminating power, for all kinds of outdoor work and groups. This new lens is made upon calculations of Dr. Sommer, Professor of Mathematics and Director in the Polytechnic Institute of New Brunswick, and the author of several optical essays, and consists of two achromatic and symmetrical combinations, between which the central diaphragm is placed. The lens is perfectly aplanatic, i. e., it works with the full aperture of the objectives. For the purposes of landscape photography, copying for architectural subjects, and for groups in the studio, as well as outside, it is considered unrivalled. It is entirely free from distortion, chemical focus, and ghosts, and the picture produced by it is as mathematically correct as it is possible to produce with any lens. It is characterized by a great depth of focus and precise definition. With all these good qualities it is commended for its great illumination or power of light and equal diffusion of light over the whole subject. A very careful choice of the optical glass of which the new lens is composed, makes it possible to secure a ratio of focus and aperture of about 6 to 1. The width of angle embraced is between 65 to 85 degrees, according to the size of diaphragm used. As to rapidity, the new lens is more than twice as rapid as the orthoscopic lens, and only a little less so than Voigtlander's long-focus portrait lenses. Seven sizes of the new lens are made, and the price list may be had of the agent.

OUR PICTURE'S AHEAD .- We have in press (ure frames) several very handsome things in the way of pictures for the future numbers of our magazine. Next month we are promised by Mr. Gentile a specimen of carbon printing. (In this case the unusually large quantity for our edition has prevented us from being ahead as usual, but we cannot help the small quantity used by somebody else ) We have already given several specimens of carbon printing in our magazine, so it will not be new to our readers. After this will come pictures from a photographer whose work is always welcome, namely, Mr. Henry Rocher, of Chicago, one of whose beautiful compositions we are printing from negatives by him. Following this will be a very handsome group of Italian statuary, of a style that will be entirely new, in the way of illustration. Other handsome things we are in treaty for, and assure our readers that no volume that we have ever issued will be artistically more handsome than the present.

#### OUR MAY OPENING.

As the opening spring starts all things in nature into life, so it is the time when we should look for a starting up of business. There are many indications of a revival, not the least of which is the disposition of manufacturers and dealers to bring their goods to notice by judicious advertising. We take pleasure this month in calling attention to those whose advertisements may be found among our advertising pages. They are all reliable houses, and we trust our readers will give every one a hearing. The advertisements are sometimes the most profitable reading. Do not omit them,

Howson & Son, Solicitors of Patents, Philadelphia, are among the best patent lawyers in the country. Photographers are indebted to Mr. Henry Howson as one of the principal agents in the death of the bromide patent, and to Mr. Charles Howson for the defeat of an extension of a patent for improvement in camera-boxes. Any business connected with patents intrusted to these gentlemen will be made a success if it be at all deserving of it.

Bullock & Crenshaw, Philadelphia, are manufacturers and importers of pure chemicals for photography; also importers of glass and porcelain apparatus. Everything in the line of wholesale druggists may be found at this house, and always of the best quality. Their name is a sufficient guarantee wherever they are known.

Hance's Photographic Specialties.— These received the highest award at the Centennial Exposition, and are now so well known that it is only necessary that we should ask a perusal of the advertisements. All that is claimed for Mr. Hance's goods may be relied upon.

Wilson, Hood & Co., Philadelphia, keep a full stock of every description of photographic goods, and are agents for the Revolving Photographic Cabinet and Bergner's Patent Print-cutters. They are also importers of the celebrated Ross and Steinheil lenses, the former of which received the medal and diploma at the Centennial Exposition. Photographers will do well to send for Wilson, Hood & Co.'s catalogue and price list.

THE CENTENNIAL PHOTOGRAPHIC COM-PANY advertise a large number of lenses and camera-boxes for sale. These were used in producing the excellent photographs of the Exhibition last year, and have all been proved. Parties wanting view outfits should examine their advertisement.

HEARN'S PHOTOGRAPHIC PRINTING INSTITUTE.—Mr. Hearn, probably, has no superior in the printing department, and has established business principally on this line of work. In addition he gives instructions in printing, does copying for the trade, and finishing in ink, oil, or water-colors.

THE Scovill Manufacturing Company, New York, are so well known that it may seem almost superfluous to say anything about them; but as there may be some who are not familiar with the fact, we will say that they are manufacturers and dealers in every description of photographic goods, but especially the American Optical Company's Apparatus, which has such a wide reputation for excellence, and the Morrison and Peerless view and portrait lenses. Their goods are to be had from dealers in all parts of the world, and can always be relied upon as of the very best quality. Their advertisement and the Times published with this journal, will give much more information about them than we can in this paragraph. We would especially advise all who contemplate outdoor work to examine the outfits of the Scovill Manufacturing Company.

SEAVEY'S BACKGROUNDS, NEW SPECIAL-TIES AND ACCESSORIES.-Mr. L. W. Seavey, New York, whose advertisement may be found among our Specialties, is well known as a most accomplished scenic and background painter. His backgrounds are used by nearly all the best artists in the country, and no man has done more to assist photographers in producing artistic work than Mr. Seavey. If any have failed to read his excellent illustrated paper, read before the National Photographic Association convention last summer, and published in the October number of this journal, we would advise them to give it their attention, and study it carefully.

CENTENNIAL PHOTOGRAPHIC COMPANY.

—We would call attention to their caution against copying their views, and the reward they offer for the apprehension and conviction of any person so engaged.

E. L. Eaton's Photographic Stock-house, Omaha, Nebraska. Western photographers who are accessible to Omaha will no doubt find it to their advantage to give Mr. Eaton a trial, as he sells at Chicago prices, and can save his patrons the cost of several hundred miles of expressage as well as several days in time. Mr. Eaton is a practical photographer, and thoroughly understands the wants of his follow-artists.

GLACÉ PHOTOGRAPHS.—Those who are not successful in producing the Glacé finish, can save themselves much trouble and their customers disappointment by sending their work to Mr. J. De Banes, 872 Broadway, who is thoroughly competent in this department.

G. SAUTER, Philadelphia, Manufacturer and Wholesale Dealer in Passepartouts Mr. Sauter has had a long experience in his particular line of work, and is careful to send out none but the best of goods.

G. GENNERT, New York, imports the celebrated S. & M. Dresden Albumen Papers, including the single and extra brilliant, and the extra brilliant Cross-sword paper. These papers are among the best in the market, and can be had of all stock-dealers in the United States and Canada. Mr. Gennert also calls attention to a number of other articles of photographic supplies, for which we refer the reader to his advertisement, and have no doubt they will be found of the same superior quality as his excellent paper.

JOHN DEAN & Co., Worcester, Mass., are manufacturers of the Nonpareil Plate. This plate is a substitute for porcelain, having a pure white surface, and capable of producing beautiful pictures. Their latest improvement simplifies the formula and insures success. Their celebrated Adamantine Ferrotype Plates are so well known among photographers that they require no commendation from us. They include the black and patent chocolate-tinted, eggshell and glossy. The long experience and wide reputation of Messrs. Dean & Co. are the best guarantee of the excellence of their goods.

CHARLES COOPER & Co., New York, are wholesale dealers in photographic chemicals, albumen paper, evaporating dishes, German solid glass baths, and the celebrated Usener's Portrait Lenses. The Messrs. Cooper & Co.'s goods may be relied upon wherever found. They also have the most extensive facilities for refining wastes and residues. Photographers who want to be confident of fair dealing in the reduction of their waste will do well

to confer with Messrs. Cooper & Co. See their advertisement.

James F. Magee & Co., Philadelphia, manufacturers of pure chemicals. Messrs. Magee & Co. are not excelled, at home or abroad, by any manufacturers of chemicals for photographers' use. They are thorough chemists, and their goods are favorites wherever known. Dealers will do well to consult Messrs. Magee & Co.'s advertisement, and if they have not heretofore done so, order at once a supply of their excellent goods.

A. M. Collins, Son & Co., Philadel-Phia.—But few photographers require any introduction to this firm, so well known are their beautiful styles of cards and cardboards. This house is one of the few that by its enterprise and skill, in its particular line, has almost exclusive control of one of the best manufacturing interests connected with photography. We would call the attention of photographers to their new sizes Imperial and Boudoir mounts. They are always ready to help introduce any new attractions that will give a push to business. Send for their price list.

Benjamin French & Co., Boston.—
This house not only keeps one of the largest and best stocks of photographic goods, which, from Mr. French's long experience, is the best suited to the wants of the photographer, but are agents for the celebrated Voigtlander & Son and Darlot lenses. These lenses are favorites with many photographers, as will be seen by the flattering testimonials in Messrs. French & Co.'s advertisement. We would also call the attention of photographers to their low-priced stereoscopic lenses. Their new catalogue of prices may be had on application.

BUZINE.—Mr. Frank French, Pecatonica, Ill, has discovered a preparation for giving a retouching surface to negatives, which he calls Buzine. We have made a trial of a sample he sent us, and it appears to be an excellent article for the purpose for which it is designed. See Specialties.

THOMAS H. McCollin, Philadelphia, is prepared to supply photographers with every kind of photographic goods; especially can we recommend the Morgan H extra paper, for which he is agent. Mr. McCollin also refines photographers' wastes, and with him they may be assured of fair dealing. See his advertisement.

C. Faser, Philadelphia, Picture Frames, Mouldings, etc. Mr. Faser has been long established in Philadelphia, and for design and workmanship his frames are not excelled. His advertisement will give full particulars.

NIXON, STOKES & Co., Philadelphia. This house is well known as manufacturers of "Carte Envelopes." They get them up in a great variety of styles, and very tasty designs. They are of various shapes and sizes, such as Cabinet, Victoria, and card photographs, and ferreotypes; are of a number of different tints, and the openings are oval, arch top, embossed, and gilt. The card envelope is the neatest thing in which to deliver pictures or send them by mail, that has ever been gotten up. Our readers are referred to the advertising pages of Messrs. Nixon & Stokes for examples of some of their latest designs, as well as for full information in reference to the sizes, prices, etc.

#### A NEW HANDBOOK.

WE have received from the Scovill Manufacturing Company, New York, a copy of a new work on photography just issued by them. The work is a translation of Gaston Tissandier's History and Handbook of Photography, by J. Thompson, F.R.G.S., published in London last year by Messrs. Samson Low, Marston Low & Searle. This is uniform with the London edition, is printed on fine tinted paper, and contains upwards of seventy illustrations. It is also further embellished with a beautiful portrait of a lady, as a frontispiece, by the photo-tint process.\*

The contents of the book are divided into three parts. Part first is devoted to a his-

tory of photography, from the discovery of the camera obscura by Porta, in the latter part of the sixteenth century, down to the introduction of the collodion process in 1851. It is one of the best histories of photography that has ever been published, and makes the work valuable for this alone.

The second part describes the various operations and processes of photography, from the arrangement of the studio to the finishing of the picture.

Part third treats of the applications of photography, among which is an interesting chapter on the microscopic dispatches during the siege of Paris.

The style of the work is peculiarly graceful, and the translation has been executed in such a manner as to preserve the French characteristics of the work, while at the same time it is put into the best of English.

The book is bound in pebbled cloth, with bevelled covers, and is handsomely gotten up. We have it for sale at the publishers' price, \$2 50.



WILL the Sphynx please tell me whether negative glasses, used over and over again (the old films being removed by the use of lye, and the glass then placed in dilute nitric acid preparatory to albumenizing), become brittle, so as to render them unfit for use? I refer more especially to solar negatives. I have used a Shive solar camera for ten years and over, and am satisfied that old negative glasses treated as above, are more liable to break than new ones that have never been used. Now, dostrong alkalies or acids have a deleterious effect upon glass?

T. B. P.

IF W. H. L., who complains in the February number of scratches from burnish-

<sup>\*</sup> The negative for this picture was made by Mr. L. S. Washburn, Louisville, Kentucky, for the Philadelphia Photographer, which was illustrated with prints from it in October, 1872.

ing, will discard the Slee mounts and use starch paste, he will find his scratches have left him.

George Sperry.

Mr. Editor: Question is asked in Sphynx what to do with bath that is contaminated with crystals and needles? They are caused by the bath getting chilled. To cure the disease dissolve half an ounce of nitrate of silver in four ounces of water, and throw it into the bath, filter, and it is ready for use. This prescription is for one gallon solution.

J. O. M.

DEAR SPHYNX: A reader of the *Photographer* journal would like to be helped. He uses double gloss Cross-sword paper; floats two minutes in a 50 gr. bath; fumes from ten to twenty minutes; paper and prints look well, but albumen dissolves in washing; before toning, it looks gritty and comes off easy. What is the matter? P.

N. B. Have worked with same material and the same way for four years, and never had such trouble; have boiled the bath to dryness, and tried again, but had the same result.

CHARITON, IOWA, March 23d, 1877.

DEAR SPHYNX: I am troubled more with my albumen paper than all things else, and I would like an answer as to the cause and cure of the trouble. Please answer in the April number of the Philadelphia Photographer.

#### Answer.

Received too late for the April number. Our correspondent having failed to give us his name, we have been unable to answer him sooner. With the above communication came several prints, which showed trouble enough. Not knowing all the conditions it is difficult to prescribe a remedy, but the appearance of the prints indicates weak silvering, caused either by the bath being weak, or by a very dry, horny condition of the albumen, which repelled the solution unequally, and caused the mottled appearance. Placing the paper in a damp place over night, or adding an ounce or two of alcohol to the bath, may remedy the difficulty.

SPHYNX.

LOGANSPORT, April 18th, 1877.
WILL Sphynx please give a formula for

plain solar printing on canvas, and also on plain paper—the full formula from beginning to end, and very much oblige a new photographer. Also what kind of canvas, and where obtained.

BEGINNER.

#### TABLE TALK.

PHOTOGRAPHERS all like sunshine, and so do we; but if we did not have a squall or tempest occasionally, we should not know how to appreciate fine weather. We all have our sunny days and our gloomy days in business, but in none more so than in the editorial profession. If an editor be fearless and impartial, he is sure to be found fault with and have some very wicked things said about him; but of course he never notices these, but comes up to his work with a cheerful face and a happy smile. And fortunate is he if he can do this, for his readers are like the good mothers who bring their children to be photographed, and want them to have happy expressions. No matter what the photographer's trials may be, how badly the bath may work, or how gloomy the light, the little one is expected to wear an expression that is "childlike and bland," or else the mother refuses to be comforted.

So the photographer, when his journal comes to him, he expects it to be filled with bright, cheerful, and instructive matter that shall keep him in good spirits, amid all his trials, for a month to come, and in this he is justified. It is no more than he has a right to expect, though we will not claim that we always succeed to this extent. But we will say that it is our purpose to fill our magazine with such matter as will instruct and benefit all our readers, and sometimes possibly amuse them. We intend that it shall wear a cheerful expression whatever the weather may be. In our efforts to bring about these desirable results, it is very gratifying to have the approval of those for whom we labor. We have many expressions of this kind, all of which we duly appreciate, but we seldom have one that gives us more satisfaction than the following extract from a letter recently received:

"I have all the volumes of the Philadelphia Photographer, from the first to 1876 inclusive, bound in morocco, and think that this year so far is better than ever. I am pleased to hand you inclosed check for this year's subscription.

"Yours truly,
"ALEXANDER J. W. COPELIN.

"CHICAGO."

We thank Mr. Copelin for his kind words, and appreciate them all the more as coming from one so capable, and who has followed us through all the years in which we have all been growing with the growth of our ever fascinating art.

To know that we have kept up with the rapid progress of photography, and that as better work is produced now than ever before, so our journal is better than ever; this gives us a great deal of courage to push on, and if others of our subscribers would do as Mr. Copelin has done in regard to the check, our hands would be strengthened all the more to continue the good work of providing for our readers the best that can possibly be produced.

Another of similar purport.

"Messrs. Benerman & Wilson: Inclosed find \$2.50 for the *Philadelphia Photographer*, six months from January 1st. January number received, for which accept thanks. I cannot get along without the

Photographer, no matter how hard the times are.

" ROBERT A. HICKOX."

The beautiful, balmy days of spring are upon us, and now is the time to clear out the dust and ashes of winter, and give everything about the gallery a fresh and cheerful aspect. This month, too, will be one of the best for views, and a good deal may be done to start up business by looking up all the outdoor work you can. Study well our picture, and then go out and see how near you can approach it.

A FINE ART EXHIBITION. - At the Academy of Fine Arts in this city, there was on exhibition during February and March a very interesting collection of works of art. It consisted of ceramics and pottery, and the celebrated Sommerville collection of antique gems, which were exhibited at the Centennial, on one side; and a very choice collection of paintings on the other, the most of which were loaned by some of the leading citizens of Philadelphia. There were also some fine pieces of sculp-How we wish such galleries could be available for photographers in every city throughout the country. We would advise them to lose no opportunity to visit and study such exhibitions.

## Editor's Table.

DRESDEN PAPER .- One who watches the workings of the market in photographic supplies must be curiously struck with the way in which the tide of favor first runs toward one kind of albumen paper and then to another. What one will condemn another will praise, and what one praises most unqualifiedly at one time he will condemn at another. We do not remember any paper, however, which has held the popular preference so long as has the "Dresden Brilliant," which is now well known in the market. During the Centennial season the Centennial Photographic Company used about two hundred reams of this paper, besides great quantities which they consumed of other kinds; moreover, they are still using it for the beautiful views

which they continue to make. This seems rather a singular fact, that we have in our own country two manufacturers of paper, one a very large one, of whom we scarcely ever hear anything. Their decaying business or lack of enterprise, we know not which, has caused them to cease advertising in bringing their manufactures to the notice of the public, or for some reason unexplained, we do not hear of them. The Dresden paper seems to be now the rage, though it has a fierce compeer in that manufactured by Mr. . Morgan, on which the picture in our present number is printed. The Dresden paper is for sale by all dealers, and advertised to the trade by the agent, Mr. G. Gennert, in our present number.

A GOOD CHANCE .- There are a good many photographers who are out of situations, and judging from the promises for business ahead, are liable to be in that unfortunate condition for some time to come, and we suggest to those the propriety of taking up the offer of the Centennial Photographic Company to sell their views all over the country during the summer and spring, at watering places and villages, and towns. There is not a town or city in the country where the people are not interested in this subject specially, and where with proper push, good business cannot be done. We know of some canvassers who are selling thirty to forty dollars' worth per day on a very small amount of capital. Of course this is unusual, but it shows what some men can do by energy and persevering effort. A good margin is allowed, the goods are advertised all over the country in the local papers, and the opportunity is a first-rate one. Take hold.

PROSECUTION FOR INFRINGEMENT. LOOK OUT! -A test case is being conducted in the courts of New York by the Centennial Photographic Company, complainants, against sundry photographers and dealers who are copying and selling their views. Measures to this end were taken some time ago, and, as the Company are determined to protect their rights, it would be well for those who are disposed to follow the pillaging portion of our fraternity, to hold up until some decision is made. We understand that one house in New York has copied largely of these views, and scattered them among the dealers in that city and neighborhood on sale, and now finds himself in the position of defendant, with his stock of goods on hand for his pains, and his patrons demoralized on the subject. Such being the facts, it does not seem to be much inducement to go into that sort of business, inasmuch as the prices obtained for copies are exceedingly close and low.

Photographic Thievery.—During the height of the season, the Centennial Photographic Company employed nearly two hundred operatives, and were as careful as could be in the selection of their employés, as to character, etc., but suffered terribly from their prints being stolen each day at some stage of manufacture. This they could not at the time find out, and for the past six months detectives have been and still are at work, striving to find where the lost property is. A couple of weeks ago a very large haul of negatives and prints was made by them, the articles being found in the possession of a land-scape photographer in the upper portion of

Philadelphia, where they were sold by the printer or printers who stole them from the Company. The parties are now under bail to answer at court for their appearance, and the detectives are still upon the track of a large nest of similar offenders. The Company authorizes us to say that they will be obliged for any information which will lead to the recovery of their property, and at the same time to caution all photographers against the purchase of such stolen property, and, in order to be on the safe side, any offer of negatives of Centennial subjects, or of unmounted prints, prints mounted on cards not the Centennial Photographic Company's, are stolen property, for the reason that no negatives whatever are sold, and no unmounted prints are allowed to go from the studio, and if copies are offered, they, too, are wrongfully made, and the Company are determined to leave no stone unturned to protect their rights, and to prosecute to the full extent of the law all who infringe. Caution is given also that as many prints have been stolen, and among them many subjects that are copyrighted, that it is unsafe to copy any of the Company's views whatever.

Now the season of bright weather is approaching, we make our usual spring call upon our readers for negatives for the use of our magazine. If a sufficient number of them signify their desire to compete for a prize, we will again offer a prize as heretofore. We do not, however, wish to be again placed in the position of offering a prize, and to have only a few of our best photographers compete for the same. We do, however, wish the very best pictures that can be obtained for studies for our patrons, and we hope for some responses to this notice soon.

OBITUARY.—Under date of Colusa, California, March 23d, a correspondent writes us of the death of Mr. George W. Valleau, photographer of that place, on March 22d, of heart disease.

SUDDEN DEATH.—P. J. Harrington, superintendent of Hargreaves Manufacturing Company, Detroit, Mich., formerly of the firm of Sherman & Harrington, photographic stockdealers, died suddenly of apoplexy, April 22d, at the St. Cloud Hotel in this city.

REBUILT.—Messrs. Carson & Graham, the burning of whose gallery we reported in our March number, have rebuilt, and are at it again with improved facilities and surroundings. We are glad to see this exhibition of their enterprise, and wish them success.



The publishers have a great many good things in anticipation for the year 1877, which they think will render their magazine more beautiful and more useful than ever before; and while they maintain that the beautiful example of photography, which accompanies each issue, is alone worth the subscription price, still more and more effort will be made to make the reading matter everything that it ought to be. Our correspondents from all the leading centres abroad will keep our readers posted on all matters of interest in their several sections, while our unrivalled staff at home will look diligently after your interests here. To make the PHILADELPHIA PHOTOGRAPHER the best PRACTICAL HELPER which can possibly be obtained, is the aim and earnest desire of its publishers.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us NEW ones, the following

For every new subscriber, for one year, \$1, payable in any of our publications, books, or, if preferred, \$1

## PREMIIIMS

worth of any of our prize pictures, or any other article for which we are agents, advertised in this magazine.

Operators, printers, etc., can secure all their necessary photographic literature in this way, by a little earnest effort.

## EACH MONTHLY ISSUE IS A PHOTOGRAPHIC WORK IN ITSELF.

### NOTICE TO SUBSCRIBERS.

Subscription price, \$5 a year, \$2.50 for six months, 50 cents per copy, postpaid. positively in advance.

In remitting by mail a post-office orler, or draft payable to the order of Benerman & Wilson, is preferable to Office, County, and State.

Canada subscribers must remit 24 ents extra, to prepay postage.

Foreign subscriptions must be accomanied by the postage in addition.

ADVERTISING sheets are bound with each number of the Magazine. Advertisements are inserted at the following

1 Month. 6 Months. 1 Year. pank-notes. Clearly give your Post- One Page, .... \$20 00 \$110 00 \$200 00 66 00 120 00 Quarter Page,.. 7 00 38 50 70 00 4 00 22.00 40.00 Cards, 6 lines, or less, 200

The attention of advertisers, and those having galleries, &c., for sale, is called to our Specialties pages. Terms, \$2 for six lines, and 25 cents for each additional line, seven words to a line, always in advance. Duplicate insertions, 50 cents

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## BENERMAN & WILSON, Publishers, OFFICE, 116 NORTH SEVENTH STREET, PHILADELPHIA.



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The Philadelphia Photographer.—A monthly magazine, illustrated by photographs of superior merit. Stands ahead of all its kindred. Thirteen years of success is a sufficient guarantee of its value and use to the practical, working, growing photographer. Do not go without its valuable help. \$5.00 a year; \$2.50 for six months.

FOR CENERAL PHOTO. PRACTICE.
Dr. Vogel's "Handbook of the Practice and Art of Photography" is the best text-book in the world. Written by an old professor who teaches photography, it gives just what is wanted in the fullest and most satisfactory manner. Price, \$3.50.

FOR THE PRINTER.
"The Practical Printer," by C W. Hearn, is a most handy and reliable book. It goes into all the operations of plain and fancy printing in silver, and is full of good. Price, \$2.50.

#### FOR CARBON PRINTING.

For those who want to try this interesting process, the "American Carbon Manual" gives the most detailed information. Price, \$2 00.

#### FOR THE DARK-ROOM.

Dr. Vogel's "Photographer's Pocket Reference Book" meets a want filled by no other book. Full of formula-short, practical, and plain. Price, \$1.50.

#### FOR THE FERROTYPER.

The "Ferrotyper's Guide" is the only standard work. Cheap and complete. 75 cents,

## FOR THE LANDSCAPE PHOTOGRAPHER. "Linn's Lookout Landscape Photography." Price, 75 cents.

#### FOR THE LANTERN EXHIBITOR.

"Wilson's Lantern Journeys" gives incidents and facts in entertaining style about 800 places and things, including 200 of the Centennial Exhibition. Price, \$2.00.

FOR THE LOVER OF ART.
"Bigelow's Artistic Photography." Beats his "Album of Lighting and Posing." Superb! With twelve photographs and instructions. Price, \$5.00.

"Burnet's Hints on Composition." A splendid work, largely illustrated, giving all the principles and rules of artistic posing. Price, \$3.50.

FOR EVERYBODY.
"Photographic Mosaics for 1877." Too good to be told. Price, 50 cents.

Benerman & Wilson, (PHOTO, BOOK) 116 N. 7th St., Phila.

Number 162.

THE

50 Cents.

# PHILADELPHIA

# Photographer.

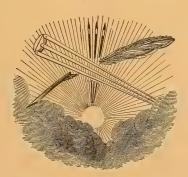
AN ILLUSTRATED MONTHLY JOURNAL,

## DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

June, 1877.



PHILADELPHIA:

BENERMAN & WILSON,

PUBLISHERS,

116 NORTH SEVENTH STREET.

Subscriptions received by all News and Stock-Dealers.

FIVE DOLLARS PER ANNUM, IN ADVANCE.

Sherman & Co., Printers, Philadelphia.

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# Photographer. Philadelphia

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#### HEALTH AND ACTINISM.

Some rather singular revelations have recently been made in this city, which seem to indicate that the same property of light by which the photographic plate is impressioned, is also a very potent remedial agent for disease. This appears to have been discovered by General A. J. Pleasanton, of Philadelphia, and consists in the use of blue glass and sunlight. It relates not only to the health of mankind and animals generally, but to vegetation as well. The discovery was made several years ago, and patented at that time. In reference to this, one of our daily papers, which has interviewed the inventor, reports as follows:

"General Pleasanton remarked that when he applied to the Patent Office in Washington in 1870, to obtain a patent for his discovery, the Commissioner was so loath to believe in the principles involved, they being contrary to preconceived opinions, that he would not grant a patent until the principles alleged had been properly solved. The Chief Commissioner sent a representative to the farm of Mr. Pleasanton, near this city, to investigate the subject and report thereon. He visited the farm, where a grapery about eighty-four feet long was subjected to the influence of the sun's rays passing through blue glass, while one portion was exposed to the vicissitudes of the atmosphere. Several professors of different colleges were present at the time, and it was found that the leaves exposed to the common rays of the sun were of a yellowish tint and from three to five inches long, while those under the influence of the blue rays were eight and nine inches long, of a dark, greenish-blue color, and velvety to the touch. Specimens of both kinds of leaves were taken to Washington and photographed, and the papers were immediately granted. Mr. Pleasanton said he did not care so much for the patent as the identification of the discovery."

Like many other important discoveries, this has lain dormant till an occasion arose to bring it forward. This came last October in quite a severe injury to the inventor himself, caused by a fall. He was treated by a skilful physician, but obtained no relief from his intense suffering which appeared to proceed from an internal injury on or about the right lung. It occurred to him to try his blue light, of which he is reported to have said:

"The next day there was a bright sunshine and a clear atmosphere. In my bathroom I have a window with a southern exposure, arranged with alternate panes of blue and plain transparent glass. I determined to try the efficacy of a sun-bath with blue' light. Accordingly, uncovering my back, I sat with my back to the blue and sun lights, which were streaming through the window into the bath-room. As soon as 11

these lights began to fall upon my back the pains began to diminish, and at the end of half an hour they had ceased altogether. Towards evening the pains returned, but they were much less than they had been before I had taken the blue-light bath, and during the night I was easier than I had been previously. The next day we had again a brilliant sunshine, clear atmosphere, and low temperature; and, intending to takeanother bath of blue and sunlight, I sent for my physician, that he might witness the effect for himself. He is the very eminent surgeon, Dr. D. Hayes Agnew, Professor of Surgery and Anatomy in the University of Pennsylvania.

"He arrived while I was taking this bath, and was shown up into my bath-room. On coming into the room I said to him: Doctor, I am glad you have come at this time. I am taking a bath of blue and sunlights.' He replied, with a smile of incredulity as to its effect: 'I see you are,' and I said, 'It is doing me great good; it is relieving me of all my pains; and I wish to give you some information that you should know. Will you be good enough to place your naked hand on that pane of transparent glass, through which the sunlight is streaming into the room? You will find it as cold as the outer atmosphere, which is at freezing temperature.' He placed his hand on it, and said: 'Yes, it is very cold.' 'Now,' said I to him, 'put the same hand on the next pane of glass, which is blue; you will find it hot.' He did so, and, in the greatest surprise, said: 'Why, I never knew that!' 'Of course you did not,' I replied; 'that is one of my discoveries that I have been trying to pump into you doctors for the last fifteen years, but without effect.' He then said: 'This is very wonderful; I had no idea of it before.' Then he said: 'This room is very warm; have you any fire to heat it?' I answered: 'No! The windows and the southern wall are in contact with the outer air. The adjoining chamber on one side, and the staircase on the other, are each without artificial heat.' 'Then,' said he, 'how do you make it so warm?' 'That,' I said, 'is another of my discoveries, and is produced by the conjunction of the opposite electricities of sunlight

and blue glass.' And I then explained to him my theory, when he said, 'That's philosophical and very simple; any one can understand that.' He then asked me where he could procure the blue glass, and on being informed he said, 'I have an invalid wife, and I will put it in my house this afternoon for her treatment.' This he has since done.

"The next day I took another bath of blue and sunlights, which effectually relieved me of every pain; and since then, now about three months, I have not had the slightest pain or sensitiveness in the parts affected, three consecutive sun and bluelight baths having completely removed every ill effect of my most serious accident."

The theory here, which, when once thought of seriously, seems self-evident, that blue glass, when exposed to the sun, creates more heat in a room than clear glass, is contrary to the generally accepted notion, that blue or violet, in excluding the heat rays, is therefore cooler. But when we consider that this exclusion of the heat rays produces a friction on the surface of the glass, it must follow that heat will be generated just as would be the case if a plate of sheet-iron were similarly acted upon. But with the blue glass, that peculiar quality known as actinism, which possesses such chemical and medicinal properties, is transmitted, and, combining with the clear sunlight, produces the wonderful effects referred to.

We do not refer to this as an inducement to photographers to put in alternate lights of blue and white glass in their skylights, but that they may have a more thorough understanding of the beautiful agent with which they all have so much to do, and have any advantages that may be derived from it in relieving "the ills that flesh is heir to."

R. J. C.

The foregoing was prepared for the March number of this journal, but was crowded out. Since then theories have been advanced pro and con, till one might be justified in assuming a position of non-committal; as, "when doctors disagree, who shall decide?" Every one, however, is at liberty to test it to his own satisfaction, and, no doubt, practice will prove more convincing than theory.

R. J. C.

#### PHOTO-STEREOTYPING (PHOTO-ENGRAVING).

A SUBSTITUTE FOR WOOD ENGRAVING.

A Paper read April 26th, 1877, before the Polytechnic Association of New York, by Dr. Adolph Ott, Member of the Chemical Society in Berlin.

For some time past an invention has elicited great interest among photographers, artists, and publishers, by which it is possible to produce a relief plate in metal of prints and engravings in as many hours as it would occupy the most skilful wood engraver days and weeks. Like many other wonderful discoveries of modern times, this new invention is an offspring of the "black art," photography, and if it will not completely replace the art of Albrecht Dürer, it certainly will prove an inestimable boon wherever quick and accurate reproductions of illustrations of any kind are wanted. It is entirely independent of the wood engraver, which is in so far of advantage, as he often fails to give a fac simile of a drawing, while the new process, in being dependent only on chemical and physical laws, is bound to give a perfect copy of any picture or sketch that may be desired; and, although manual labor is not entirely dispensed with, it is reduced to a minimum, being confined to the mere operation of "finishing," viz., to the deepening of wider spaces and the touching up of any portions which may not have come out sufficiently perfect. Or, in other words, the tool of the engraver has become a mere auxiliary instrument, while on the other hand an infinitely greater amount of work can be executed in the same time.

The first impulse to this important invention was given by a seemingly insignificant observation made in 1839 by the Englishman, Mungo Ponton. This investigator discovered that paper which had been soaked in a solution of a chromic salt and dried, was rendered sensitive to light, viz., that light colored it. If an object is placed on paper thus prepared, the parts exposed to light soon assume an orange tint, while the covered parts retain the original color. On washing with water a white image on orange ground is obtained; that is, the

parts exposed to light remain insoluble, while the others are being removed. Mr. Becquerel, the celebrated French physicist, shortly afterwards investigated the action of chromic salts on organic substances under the influence of light, and arrived at the conclusion that the coloration and insolubility were due to the reaction which took place between the chromic salt and the gelatin (sizing matter) in the paper, as, in using unsized paper, no effect could be produced.

Fox Talbot, in 1852, based on this discovery a method of photo-engraving or a heliographic process. On a steel plate he spread in the dark a mixture of chromic salt and gelatin, allowed it to dry, and exposed it under a positive cliché to the sun's rays. Now as to the question what took place, we may state that below all those parts through which the light could pass freely, the gelatin was rendered insoluble, while under the opaque lines it remained soluble. Such a plate, on being immersed in water, rendered a true fac simile of the drawing in the layer of gelatin, the metal being laid bare and forming the ground. It is evident that, by pouring an acid liquid on the plate, the parts laid bare would be bitten in, thus giving an exact copy of the photograph, from which prints may be struck off as if the drawing had been engraved by the artist himself.

Mr. Pretsch, an Austrian, did not rest content at this point. His idea was to produce a relief plate, not a steel engraving, but a substitute for woodcuts, to be set up with type in the printing press. He could not have failed to notice that a sensitized gelatin film, on being treated with water, swells slightly in the parts on which the light has not acted, while it remained unaltered in this respect in the parts affected by the light. This is simply owing to the fact that gelatin will retain its property to absorb water where the light could not act, while it will be deprived of it wherever it has become insoluble. Here, then, we have a substance, of which the reliefs and depressions correspond to the lights and shades of the photograph. From this Pretsch took an electrotype in copper, which represented the image in intaglio, when a

positive cliché had been employed, and in relief if the sensitized film had been exposed with a negative. However simple this process appears in theory, the difficulty is in practice. The gelatin film is likely to swell still more in the electro-metallic bath (a copper solution), losing its form, etc.; in fact, in spite of all the ingenious devices, the process failed to produce commercial results.

It may be that the great number of artists who are at the disposition of publishers and illustrated journals in the Old World, as well as the prejudices which this innovation met, have also been among the causes that prevented the Austrian inventor to improve on his method. But, supposing even the practical difficulties could then have been removed, it is yet doubtful whether an invention of that kind would have found the necessary encouragement on the other side of the Atlantic. keen observer it would seem that the United States offered a more proper field, for that is pre-eminently the land of periodicals, illustrated literature, and reprinting commercial world also takes advantage of illustrated catalogues and price lists in a much greater degree, and we see the large firms actually overbid themselves with publications of this kind. No doubt such were the considerations that presented themselves to the gentlemen of the "Photo-Engraving Company" (Mr. John C. Moss), and the "Photo-Plate-Engraving Company" (Mr. J. Oesterreicher), the latter of whom is a pupil and countryman of Pretsch, and led them to improve said invention, and to try with it their fortunes here. They have both solved the problem, and it is not exaggerated if we say that they have thus formed a connecting link between the most important invention of ancient times, the art of Guttenberg, with one of the most interesting inventions of modern times, photography.

With regard to the modus operandi, it is, of course, kept secret, but the history of a plate has been stated thus by one of the above-named companies:

"The subject—a properly prepared drawing or print—goes to the photograph gallery, where a negative is made in the usual way, except that it must be more perfect

than any other known to the photographic art. The negative having been duly examined is forwarded to the secret department, whence issues a plaster of Paris mould, which is sent to the stereotype foundry. The substance in which it is cast is ordinary stereotype metal, with some modifications, the constituents being mixed in our own works. Coming out of the 'cast,' the rough plate is shaved to the proper thickness, and sent to the printer to be tested. 'passed' it is taken in hand by the 'finishers,' who are for the most part regular wood engravers, who deepen the wider spaces, and touch up any portions which may not have come out sufficiently perfect. Then 'clean' and 'file' proofs are taken, the former to be sent to the customer, and the latter, properly numbered, to be pasted in a scrap-book for reference, and the plate is delivered to the 'blocker,' to be mounted type-high, when, after a final examination, it is ready for use. It may be printed from direct, or, if desired, electrotypes or duplicate stereotypes may be made from it in the usual way."

From this it seems that a plaster of Paris mould is taken from the gelatin relief, and it is evident that from the first cast a second must be taken, which is stereotyped. We prefer, therefore, to call the process PHOTO-STEREOTYPING, and not photo-engraving. Useful information on the preparation of gelatin plates may be found in the German work of A. Martin, Handbuch der Email-Photographie und der Phototypie oder des Lichtdrucks (Weimar, 1872, B. F. Voigt), and Hints on Electrotyping and Stereotyping have been published by the celebrated firm of R. Hoe & Co., New York, who also furnish the necessary apparatus for these processes, except, of course, for the purely photographic parts.

We will here remark that, according to our own observations, the gelatin relief is better brought out by using a very dilute solution of ammonia instead of pure water, and, in order to prevent the adhesion of the plaster of Paris, the relief plates should be soaked in a solution of protosulphate of iron (40 grains to 1 ounce of water), to which a little glycerin has been added.

We had lately the opportunity to visit

one of the above-named establishments in this city, and were really surprised at the diversity of applications and the rapidity of execution which this new process allowed. The accuracy is absolute, and, of course, every picture can be reduced or enlarged at will. Various drawings may also be combined and transferred on a plate in relief, and, where an original illustration is to be made, the draughtsman also draws an advantage from the fact that the sketching on paper allows him a much greater freedom of execution than to the xylographer, who has to work on a most resisting material, boxwood.

With regard to the rapidity of the manipulation, it is well known that the chemical effects of the sun take place very quickly, and, although many operations have to be executed which have nothing in common with the photographic art, it can safely be stated that the production of a relief from the most complicated drawing will only require as many hours, while the same work might occupy as many days or weeks of a skilful engraver's time.

The weekly pay-roll of the Photo-Engraving Company contains over sixty names, and it is estimated that, by the aid of their system and machinery, they can execute annually an amount of work which it would require the labor of one thousand wood engravers to accomplish by hand.

By the application of artificial light, oxycalcium, magnesium, or electric light, the operator is also independent of the sun.

Is it possible to obtain also gradations from light to shade (half-tones) in the same manner as in photography? Most certainly; but, owing to the fact that the relief is not in one and the same plane in such a case, a cliché or stereotype plate of this kind could not be used in the steam printing press. In the new art these gradations must be produced in lines; however, it is already possible, by means of the formation of a grain, as in lithography, to print halftones directly by the steam-press. The grain lays here as on the stone on one plane. We shall, therefore, soon have illustrated journals wherein nature is reproduced without the least aid of the draughtsman. What an inestimable boon for literature and sci-

ence! The most important illustrated journals of the metropolis make already an extended use of photo-stereotyping, at present yet in the manner of xylography, but the hearers present will, no doubt, have observed that the illustrations of European magazines, which arrive towards the end of the week, can be found at the close already in American journals. To the dissemination of art and the artistic culture of the masses photo-stereotyping will be of the greatest benefit, in so far as works of art, which only were accessible to a small circle of connoisseurs, can, ere long, be purchased by almost everybody. Thus one improvement is initiated by another in order to render photography what it should be, A UNIVERSAL REPRODUCING ART!

#### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

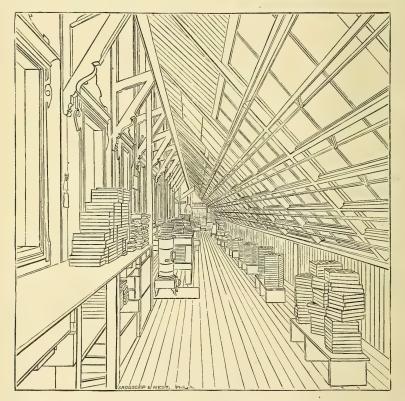
(Continued from page 137.)

Mr. Wilson, whom everybody connected with the Centennial Photographic Company appreciated as one of the most accommodating of men, used to be called upon daily, and frequently a good many times in the course of a day, to show the inside workings of the institution to visiting photographers and curious sight-seeing friends interested in some way or other in our art. The task, although never objected to, according to my knowledge and belief, was nevertheless an onerous one, and consumed a good deal of patience and an amount of time that, at the particular period of which I am writing, was extremely precious. Parenthetically, I will remark that visitors seldom take into consideration the value of the working hours of those upon whom they may call. The gentleman in question had to guide them through all of the rooms forming or rather inclosing the quadrangle of which I have already spoken. As all of the mannerisms of the place were on a most extensive scale, and therefore novel to the majority of our "Professors," he was goodnatured enough to stop in every room and explain the improved process that had in each case been adopted. Following him around, upon several occasions, with the

hope of exchanging a private word, I found that the most of his time was taken up in explaining the mysteries of the printing department. Since this portion of the establishment seemed to be so attractive, I propose to dally there awhile and tell you all I know about it.

One of the lengths of our building was originally designed for, and consecrated to us, a printing-room. It was glazed upon one side, and ranging upon the other, convenient work-benches with drawers were placed. As to the exact dimensions of this room I am at a loss. It was sufficiently large to accommodate at least twenty printers, but, ample as was the space, it

was surrounded or encompassed by a veranda, a veritable promenade or boardwalk. It must have been at least a hundred feet in length, probably more. There was a railing running around the whole of it, and a projecting roof above. It must have been Mr. Wilson who conceived the idea of adapting the southern exposure to printing purposes. Large sashes were fitted from the roof to the balustrade, inclined at a slight angle, the ends were protected by partitions, and the result was a long magnificently lighted apartment. The sidescreens, of tissue-paper, were so adjusted as to be made serviceable for changes of light, and racks placed immediately under the



was found to be insufficient for the purpose, and other structures had to be devised. There was an apartment built in the central courtyard, the material of which was afterwards used in constructing that which I consider to be the best "printing" room I have ever seen. The photographic studio

windows, as high as the hand could reach, for the support of the printing-frames.

The drawing which is annexed, will give you a very clear understanding of what this great printing-room was like, both as to construction and arrangement, though our photographer who made the view for us has evidently fixed up matters for the occasion. The printing-frames are not piled up so precisely always, neither is the room at any time so free from the workmen; it was probably cleared for our purpose.

The racks for the printing-frames at the windows are plainly shown here; they are permanently fixed under the sash, and of such width as to suit the largest measure of printing-frames, and made so as to hold the printing-frame both at the top and bottom, at the proper angle to the sun. In the inside printing-room the sashes are hung on a swivel so as to change the angle; but those in the portico or outer printing-room are permanent. All the printing, or nearly all, is done under tissue-paper; this is a slow method, it is true, but the results are far superior, and as superiority is the principal aim in this establishment, but little regard is paid to anything that will interfere. By the cut it will be seen that the printers stand side by side, and behind them are arranged their counters, and drawers, and changing-boxes, and all the other conveniences of a model printing-room, and its dimensions are so great that one may pass by the other, or the overseer pass to and fro, without any interference with the work, and while everything is supplied of the best quality and in liberal quantity, yet due attention is given to economy, and above all to excellence.

Mr. H. C. Bridle was, and still is, the general superintendent of this department, and he has kindly given me some details in regard to the workings of it. I am informed, then, by him, that as many as fifteen hundred negatives have been suffering exposure at one time. I neglected to ask the number of hands, but, judging from the line that filed into the office upon payday, there were a good many; I should say forty. I acknowledge that the description is not very definite.

Two reams of albumen paper were sometimes silvered in one day, and I presume that in the busy season the average must have been ten reams of paper weekly.

The consumption of nitrate of silver was correspondingly great, and I believe that the stockkeeper has handed over for use over thirty pounds during the six working days.

The last sentence causes me to make an incidental remark. I have made use of the phrase six working days. As far as my opportunities extend, I wish to record the fact that, notwithstanding the almost irresistible inducements, even in some cases what were deemed absolute necessities, the rule of no Sunday work was rigorously adhered to. The credit for the strict enforcement of this principle belongs to Mr. E. L. Just returning from a country Wilson. in which (although to my disgust) I had to do double duty upon the Sabbath, I own that my conscientious scruples might have been easily overcome by the many solicitations of the foreigners, who could not understand why we did not take advantage of the opportunities that the almost entire desertion of the buildings afforded us.

Some prominent members of the "Commission" were not only willing, but were desirous that we should work upon that day in preference to others, and I can tell of some of our operators who were seriously annoyed by not having the privilege. Many thousands of dollars were doubtlessly lost to the Company's exchequer, but now that it is all over, recurring to the affairs of the past, I cannot fail in appreciating the course, and in praising the man who was firm and consistent in its maintenance.

In connection with this matter, too, and in direct communion with our present subject, there were complaints from the printing department. There the constant demand from those who manipulated the "blocks" was for "more paper," diversified with other cries, signifying that "I'm out of paper."

These remarks were heard more especially upon a Monday morning. Those in charge of the "silvering," probably to keep themselves from being so badly badgered, were anxious enough to devote a few hours of the Sunday night in getting up with their work, but were always restrained by the invariable rule of no admittance.

Now in regard to the sensitizing of paper the simplest plan was adopted. The bath' was a plain solution of silver, from 40 to 50 grains strong; the paper was floated about one and a half minutes, and fumed fifteen minutes to half an hour, according to the

quality of the paper. (If I go too much into detail in the matter it is done simply to give any who may need it the advantage of such little dodges as are used here; to many more they will not be new.) After the paper is floated and drawn over the customary glassrod, it is hung upon a line by one corner, and then the two corners which are opposite each other are fastened with a second clothesclip, and a third clip is attached to the bottom corner of the sheet. Thus the moist surface is kept from attaching itself to the different parts of the sheet. From the silvering-room to the drying-box the paper was carried. The drying-box was an immense affair, about 18 feet long, with a heavy wrought-iron bottom; underneath this iron bottom the heat was applied so that no fumes of gas or soot could possibly reach the paper. When once this iron bottom was heated a very little further application was needed underneath, merely enough to keep the standard degree of heat. This is an expensive sort of drying-box in the beginning, but the most economical one in the matter of fuel in the end. From the drying-box to the fuming-box was the next procedure; wooden frames were made of the size of a sheet of paper, and at each of the four corners on each side of the frames brass adjustable springs were attached, so that a sheet of paper could be placed upon each side of the frame, the sheets being back to back; then the frames were placed in the fumingbox, which was properly grooved to receive them. The division of labor which was arranged here was admirable; each department had its own particular attendants, even to cutting up paper for the use of the printers.

There were several persons in the silvering-room, and I am right sure that no rule was established making it necessary for each of them to handle their material in a prescribed way. Good workmanship soon makes itself apparent, and I confess being in league with the art critics who praise fine results without caring for the methods by which they have been produced. I have been told of the proprietor of a celebrated gallery insisting (under threats of instant dismissal) upon his dark-room men coating plates in a certain manner to which he had

taken a liking. The particular method being new, or rather antagonistic to parties lately employed, places the latter in a most unfavorable position. I have made it an invariable rule to allow each of my employés, in their respective lines of duty, to work as they choose, so long as the results were good. When I become convinced that improvements can be made, and that I can make them, THEN, and not until then, do I commence to have anything to say.

Although I acknowledge the advantages attached to the use of uncontaminated solutions, I must still give my preferences for printing purposes to a bath, the formula for which was first published by Mr. Hugh O'Neil, of New York. It was reprinted by Mr. Wilson, in the *Philadelphia Photographer*, under the caption of the "Old, Old Story," and will bear another repetition.

Silver solution, 35 grs. silver, water .  $\frac{1}{2}$  gallon. Muriatic acid, . . . .  $\frac{1}{2}$  ounce.

Shake well, and add enough ammonia to make it slightly alkaline.

Shake well, filter, and use the filter over and over again. Every time you strengthen, add a little acid and ammonia.

Add a little C. P. nitric acid, and neutralize when red teardrops appear.

I think that I have remembered the entire wording of the article verbatim et literatim, but I know that the recipe as I give it is reliable.

The printing was done by squads usually of two or four; boys were employed to fill the frames and to empty them while the experienced printers attended to the exposure. The paper used was mainly the double brilliant Dresden paper, which seemed to meet with favor by all who used it. The toning bath employed was the ordinary carbonate of soda bath. Four men and two helpers were kept busy almost constantly at the toning dishes from morning until night, and on very clear days they were often behind.

The blister business, about which so much has been said, was not a serious trouble with us. At all events I heard but very little of it. I saw some large prints that showed biq blisters, but their appearance was occasional only.

Whilst referring to this printing business,

I had almost forgotten to make an intended remark in regard to the use of tinted papers. I believe that I have finally come to the conclusion that the pure white surface is the most desirable for photographic purposes. After running in a rut for a number of years, anything that is new is apt to captivate us, and for the time being, we imagine excellencies to have been attained that do not really exist.

Since my return to the legitimate portrait department of our art, I have given considerable thought to this one item. In my old practices as a water-color painter of "landscapes and seascapes," I had been taught the habit of first washing over or tinting the papers with some combination of warm colors. The "principle" was the same as that which induces the photographer to use the pink instead of the white surface. It is claimed that harshness is prevented. I am inclined, however, to fall back upon old authorities, and claim precedence for the purity of the lights. The tinted papers, as we usually receive them, soon become, after being worked, only dirty-looking substratums.

At one time, years ago, I made rather a pretty class of picture, adapted to the larger sizes, in which the face, hands, and all of the real lights of the picture were kept perfectly pure, and the remaining portions were stained. Exposing the "ways that are dark," I will confess the method then used. After the photograph was printed, toned, and partially washed, I would cover the portions that I desired to remain unaltered with rather a heavy, normal collodion. Afterwards I would immerse the print in a solution composed of an "extract of madder," brought to a pinkish color with a free use of alum and water, heated. Of course, for awhile the making of the picture was quite remunerative to me, as being a novelty in photography. Others of our brethren, however, commenced to imitate and stained their papers with all sorts of solutions.

Their practices were as bad as those of the dry plate workers, because I know that they brought "coffee, tea, and ale," into requisition. Some of the results were ludic crous, and the general average of the attempts was bad.

I find my remarks are exceeding my space, and I must stop. We will take up the further manipulations of prints in another series of remarks. I will close by giving you an idea of the work that was produced and the material used during one month of last year, the details of which I have obtained from Mr. Bridle, as follows:

Nitrate of silver, 96 pounds.
Chloride of gold, 22 ounces.
Albumen-paper, 17,344 sheets.
Stereo printing-frames in use, 1300.
Stereo prints made, 131,000.
Other sizes from 17 x 21 down, 18,533.
Number of employés to do the above work, 41.

I do not remember ever seeing this exceeded.

(To be continued.)

#### Collection and Recovery of Wastes.

In the various processes of photography in which nitrate of silver is used, the percentage of what is called waste is very large, but with proper care and management this may nearly all be recovered, and thus keep the actual consumption of silver down to a very small figure. We are convinced from the appearance of many operating-rooms that sufficient care is not exercised in saving the dripping from plates in the negative department.

In the dark-room the careful operator has in mind the saving of silver in every movement he makes. In making up and filtering his bath he takes the precaution to spread some old newspapers on the floor to catch any drops of silver that may fall. These papers he keeps for that purpose.

With waste blotting-paper he wipes any drippings from the bottles, the bath or the plate-holder. He drains his plates well when they come from the bath, and then uses plenty of blotting-paper to catch any further drippings in the holder. He has a box padded in the bottom with blotting-paper, in which he carries the holder from the dark-room to the camera. He saves his first washings, after developing, in a tank prepared for the purpose, and scrapes the

films from all plates that are failures. This last is best done by placing the plates in a dish or tub of water till the day's work is over.

In the printing department the same precautions are observed in the use of the silver bath as in the dark-room. Where the paper is hung to dry, waste paper of any kind is placed on the floor to receive the drippings. All cuttings from the sheets or prints are carefully preserved, together with blotters, filters, and scraps of every kind that have been stained with silver. The first washings of the prints which show a milky appearance are carefully saved in a large tank or barrels; old toning baths are also saved for the gold, and finally the fixing bath, which performs the last chemical operation for the prints, is deposited in a barrel, tub, or bottle, together with the negative hypo bath from the dark-room.

To the developer washings a small quantity of a saturated solution of salt may be added every night, and the clear water drawn off every morning from a faucet placed at a proper distance from the bottom of the tank, according to its size. The print washings are treated similarly by adding every night one pint of a saturated solution of salt to every ten or twelve gallons of water used, stir well, and draw off in the morning or when full. To the old hyposulphite baths may be added from time to time a few lumps of sulphuret of potash, or the same in solution. A black precipitate of sulphide of silver will be formed, which will settle and leave the clear water to be drawn off. An excess of sulphuret will do no harm.

When a sufficient quantity of waste has collected according to the foregoing treatment, the various kinds are then to be prepared for reduction. This may be done by freeing the residues from the surplus water as much as possible, and putting them in wide-mouth bottles, each kind distinctly labelled, preparatory to sending them together with the waste paper to a refiner, provided the photographer does not care to undertake the work of reducing it himself. But we would caution any photographer who sends his waste out, to be careful that it goes into the hands of reliable parties.

On no account deliver it to an agent of some so-called refining company who may come along and offer to do it for eight or ten per cent, for in most cases they are frauds, and if ever you receive anything the amount will be so small that you will not feel repaid for the trouble you have been to in saving your waste. Either send it to somebody you know that will not do it for less than from fifteen to twenty per cent., according to the quantity, or else do it yourself by the processes which we propose to give you here.

The black mudlike mass which will be found in the bottom of the developing tank, after the water has been drawn off as closely as possible, should be spread upon a filter and allowed to dry. A filter for this purpose is made by stretching stout muslin over a frame or hoop of any size sufficient for the purpose. The drying is facilitated by placing it out in the sun, and occasionally turning the mass over and pulverizing it as it dries. If there be much water in this residue, it may be better to spread sheets of filtering-paper over the cloth before placing the mass upon it. When it is thoroughly dry it is ready for the crucible. Collodion films are to be spread out and thoroughly dried, when they may be placed in an iron pan and burned. The remaining ashes are then ready to be prepared for the crucible.

The print washings are collected and dried in the same manner as the developer residues. Should the chloride of silver fail to settle after the salt is added and being well stirred, it may be precipitated by the addition of a mixture of slaked lime and water of about the consistency of thick whitewash; this is also assisted by the addition of a small quantity of a strong solution of sulphuret of potash.

Residues from hyposulphite fixing baths are freed from the supernatant liquid by decanting the latter; the precipitate is then washed well with warm water, and permitted to dry. This is sulphide of silver, and to prepare it for reduction it must be roasted. This is done by placing it in an iron pan or shovel, and submitting it to the heat of a brisk coal fire. This should be done in the open air, or in the draft of a large chimney. When the mass assumes a

red heat and the vapor ceases, it may be removed from the fire and allowed to cool.

Print clippings, filters, and all waste paper which has absorbed silver, are to be burned. This is facilitated by sprinkling the paper, especially that which is poor in silver, with a solution of nitrate of potash (saltpetre) three ounces, water, eight ounces. When dry they are burned in an open grate or stove. Care must be taken that the draft is not too strong, or too much paper put on at once, to cause the ashes to be carried off with the flame and smoke. Do not try to hurry it, and you will be repaid for your patience. If there be a large quantity of paper an occasional raking out of the ashes from the grate will admit the air and assist combustion.

Having prepared the several residues, the next in order is to reduce them to metallic silver. This is done by fusion, assisted by various saline mixtures which are called fluxes. A different flux or different proportions are used for each of the different kinds of waste. In each case it is important that the residue and flux be ground together in an iron mortar as fine as possible, after being mixed in the following proportions:

#### For Chloride of Silver.

This may be precipitated from old baths or print washings.

Carbonate of Potash, . . 16 ounces.
Powdered Resin, . . . 2 "

Take of this flux half the weight of the chloride. Thoroughly mix and grind them together as before directed; then fill a Hessian crucible\* about three-quarters full, packing it in closely. A layer of common salt sprinkled over the top tends to prevent boiling over during the fusing process. The carbonate of potash may be used alone in this case, but chloride of silver volatilizes, and portions of it escape before the reduction has commenced; the resin combining with it prevents this.

#### Ashes from Collodion Films.

These consist mostly of iodide and bromide of silver, and may be mixed in the proportion of five ounces of ashes to four ounces of the following flux:

Carbonate of Potash, . . 8 ounces. Bicarbonate of Soda, . . 1 "

Prepare the crucible the same as before.

#### Developer Precipitate.

This having been prepared, as previously directed, mix with equal parts of the following:

Carbonate of Potash, . . 5 ounces. Nitrate of Potash, . . . 1 "

Place in the crucible the same as before.

#### Paper Ashes.

These are to be sifted through a fine sieve to free them from bits of glass, nails, etc. Any beads of metallic silver remaining on the sieve should be returned to the ashes. Mix these with equal weight of

Carbonate of Potash, . . 4 ounces. Bicarbonate of Soda, . . 1 "

Prepare the crucible as before directed.

#### Roasted Sulphide of Silver.

This compound is the most difficult of all to reduce. The following flux has been proved to be excellent:

Carbonate of Potash, . . . 15 ounces. Bicarbonate of Soda, . . . 10 " Nitrate of Potash, . . . 5 "

Mix eight ounces of sulphide to seven ounces of flux, and only half fill the crucible, as the mixture seethes violently during reduction.

#### Reduction.

For this purpose a small furnace, or a stove with a good draft should be used. An ordinary coal fire answers well, though some prefer coke or charcoal, as they produce a quick heat and make less ashes to clog the fire. The crucible should have a cover and be buried in the coals. As the contents of the crucible fuse and settle more of the mixture may be added with an iron spoon, a small quantity at a time, till the crucible is filled with the molten mass. Then cover it and subject it to a white heat for about half an hour. To ascertain if the reduction be complete take a stout iron wire and stir the mass. If reduced it will seem perfectly liquid without

<sup>\*</sup> These come in nests and may be had of any rlruggist.

any feeling of sand or grittiness. The fused silver may also be felt at the bottom by its greater density and resistance, and when the wire is withdrawn a smooth black glass will be found upon it, free from sand or roughness.

If an examination answers these conditions the crucible may be removed and allowed to cool, and is then broken with a hammer, when a button of pure metallic silver will be found in the bottom.

These processes may seem tedious and troublesome to those not familiar with them, but they are not really so. All of the work can be done at odd times and during stormy weather, and the extra cost for materials, beyond what may be found in every gallery, is trifling.

Any photographer who will practice economy in collecting his waste, and then reduce it himself according to the methods we have described, will find a handsome balance to his credit in the waste account at the end of the year.

#### EDITORIAL TRIALS.

UNDER the above heading the editor of Scribner's Magazine sets forth some of the trials which beset an editor of a magazine of that class. He states, among other things, that Thackeray left the editorship of the Cornhill because he could not or would not stand the strain which the position imposed upon his sympathies. Moreover that no man but an editor knows exactly what this means. Although he has talked about it a good deal, the world is slow to recognize the difficulties of his office, and, if he be a sympathetic man, the pain which he undergoes in its wise administration. It seems to be supposed by the constantly increasing number of aspirants for a literary life that if he will, he can lift them into eminence; all he needs to do is to accept their offerings in order to give them a start, which is so easy to be done, if he will only publish their effusions and then give them a foothold? In the first place no account is made of the fact that a periodical is not published for the benefit of writers, but for that of readers; no account is made of the fact, that if the readers are

not satisfied, the publishers cannot be, and that publishing is purely a business matter. The publisher agrees for a consideration to give to his readers the best literary material he can buy, and he is bound to do this irrespective of all other considerations. His living and prosperity no less than his business honor, binds him to just this and compels the editor to just this; the editor has no right under any circumstances to take into consideration the desires or the needs of a writer who seeks a place in his columns.

While all these views are very practical as to the ordinary magazine, the editor of a class magazine such as our own, is subjected to special and still greater trials. Not only are his sympathies worked upon very much, and the applications to him for help quite as numerous and quite as pressing as in the other case, but his obligations are also greater, inasmuch as his readers and patrons are comparatively few, and thus brought more closely into contact with him. His obligations to them become as it were more close and more personal, and more account is made of his actions than is made of those of an editor of a magazine for the public at large. His readers must not only be equally satisfied with the matter which he gives them, but he is moreover bound to look after their welfare strictly, in keeping them from that which would mislead or deceive, or cause them to make mistakes in their various vocations, or to be taken advantage of by those who are constantly on the alert to make their living by misrepresentation and deception; and thus his honor is to an unusual degree at stake. Not only this, he is sometimes compelled by his official position to stand the brunt of an entire battle waged against the fraternity, and is made the victim of spite and persecution, and almost assassination. Yet all this he is expected to bear, and more too, for the annual stipend which he receives from each of his subscribers. But one of the most continual and frequent sources of trial to the class editor is the frequent appeal to his sympathies. He is often applied to to insert articles which are the result of spite and jealousy, where one desires to ventilate his feelings against his

neighbor. Again, speaking more closely of our own class, he is frequently sent examples of work, which he is expected to criticize very favorably, whether it is deserving or not, in order that said criticism may be copied into the village paper for advertising purposes, and if this is refused, the complaint is made that he is guilty of favoring only the great names, those making the charge forgetting that only those who make good work deserve to have great names, and thus did it happen that their names are great. The editor does not make them great, but the photographer who owns a great name has honestly earned fame, and it is perhaps only right to ask whether it is just to him to give him only an even footing with those who have neither fought for nor earned a position. It is certainly not just to treat him in this way; he ought to be considered first who has had his fight and won it worthily, and if he is not to have a reward, then he may well complain of injustice. If he has bravely worked through all the early discouragements of a career, and won his advantage, then he has a right to all which pertains thereto.

No fair-minded person should quarrel with this, because it is precisely the advantage which each wishes to secure, but they do thus quarrel, and thus the trial to the editor. There is nothing which we desire to see more than an increase of the number of photographers who by their work have made themselves worthy of special mention. It has been our labor for years to increase this number, and indeed it is one of our chief anxieties that the number of such should be increased, and for this end we put forth more labor than is occasioned by all the rest of our duties put together. Another source of great trial to us comes through the man who having by practice arrived at a certain degree of attainment in photography, sets himself up as an instructor, and having by careful study obtained good working methods, forgetting the source from which he has obtained his knowledge, begs for admission to our pages through advertising, thus bringing to him the less intelligent ones for the purpose of giving them instructions for a price. We are frequently upbraided for our refusal to allow such matters as this, and we believe if the real truth were known, and the facts were footed up, that we have refused more money for advertisements than we have ever received, of a class which in our judgment could not be admitted to our pages without doing great injury to our readers.

We have always taken the ground that since the most important element of the photographic process has been given freely to the public, and that all who practice photography to-day are sharing their advantages, that the same free giving should be encouraged in every possible way. While such a policy may, and perhaps would, have caused a few to have made great sacrifices, yet in the end we do not believe there would be any money loss at all.

We have alluded to the editor's trials which strain upon his sympathies; permit us to present a few of them, some of which are recent occurrences. (We spare the process man. He never works upon our sympathies.)

A young man with some little experience, and great expectations, and high ambitions, and thorough industry, sends us some examples of work accompanied with a letter, in which he incloses an advertisement for insertion in our magazine, and with a statement that the hopes of his life are hanging upon the result of our answer to his request to permit him to offer his services to the fraternity, in the way of instructions in a process for producing work similar to the examples he sends; that his destiny is in our hands, and that he is waiting to hear his fate. A woman writes that the living of herself and her children, who have been left without a protector and unprovided by the death of a father and husband from cyanide poison, depends upon our decision to advertise a certain method of retouching and improving the negative, and if we do not permit her thus to advertise she and her little ones must become beggars. A young man who has been two years at the business, wishing to earn his own living and to support a widowed mother, claims to have certain dodges in printing which he desires to teach to our subscribers for a price. Another man claims to have discovered a method of accelerating the exposure, and

not wishing to purchase us by offers of advertising patronage, asks us, out of pity to his motherless children and to himself, who has just risen from a bed of sickness, to remain neutral, that he may visit the fraternity, and by his peculiar deceptions gain from them his living. Many others write that they are poor, and that they have no resources but their power to fleece the ignorant, and all these we know have no knowledge which has not either been published or already given to the class for which they are intended, some time back. To a man who carries a heart such appeals are painful beyond expression, and yet he has no right to yield the slightest consideration to them, and he must not do it. Neither have they any right to distress him in this way; some of them know this and some do

All of them could do better by confining themselves to an honest method of gaining a living, and to a more certain one. We are not pleading for consideration for ourselves, or to be spared from any duty which should be ours to perform, but those who do feel any interest in us whatever, should remember that eyes wear out, that work presses, that cares increase, that every day brings labor and fatigue, and every evening demands rest, which in the majority of cases cannot be taken. We are always ready and willing and glad to serve and to help our patrons individually so far as our time will allow, but when the time that belongs to others is asked for, we should not be abused when we say no. Every manly and womanly person should strive each day to grow more and more self-reliant, and to this grace we commend you.

Some time ago, and somewhere, we read another article upon this subject, which we sympathized with most heartily, and which depicted very graphically some of our own trials during the last thirteen or fourteen years of editorial life, which we may sum up about as follows:

Requested to retract, 46 times.
Retracted, 0.
Bad pictures sent to be puffed, 26,483.
Puffed (out of sympathy), 628.
Threatened to be whipped, 13 times.
Been whipped, 0.

The other fellow there, 0. Been threatened with suits, 26 times. Been sued (for the fraternity), 3 times.

In prison (for the fraternity), 1 time.

Arrested, 3 times.

Taught photographers their business by post, 123.

Answered the same questions over and over, 2480 times.

Sphinx invented after the above.

Opinion on the carbon process changed, 1 time.

Expect to change again on the above, 0.

Threatened with "red-hot treatment," 4 times.

Received it monthly, for some time. Built galleries by letter, 26.

Sold galleries, 47.

Was promised commission on sales, \$14.50.

Was paid commissions on the above, \$0.00.

Made advantageous partnerships, 43 times.

Blackguarded for it afterwards, 43 times. Taxed to support the National Photographic Association, including lawsuits, \$7500.00.

Bought an American Optical Company's box, 1865.

Cash balance at the end of thirteen years, 47 cts.

Expectations for the future, \$0,000,000.

#### An Evening with the Lantern.

Some years ago the writer of this paper was asked by a lady if it was possible to obtain a number of good photographs, about 6 x 8 inches in size or larger, of American public buildings, street scenes, and other views, to send to a friend in England. Not being able to procure pictures of the subjects and of the merit desired, the matter entirely escaped my memory. A short time afterwards I was informed by my friend that she had procured a supply of excellent photographs of the subjects required, and I was asked to examine and pass judgment upon them. After an examination, much to my surprise I recognized the pictures as having been made in the United States by one of England's best known artists, printed

in England, and returned to this country for sale. It was humiliating, but nevertheless true.

This incident occurred several years past, and it is to be hoped that, should a similar request be made to-day, a different result might be recorded.

On Friday evening, March 20th, I was present at a meeting of the Photographic Society of Philadelphia, at the Hall of the Franklin Institute, and there witnessed a delightful exhibition of lantern slides, made by Mr. Ellerslie Wallace, from negatives taken by himself, both in England and upon the Continent. Mr. Wallace is the Secretary of the Photographic Society of Philadelphia, and an amateur of excellent ability. "These pictures," he mentioned to the audience, "were made during several years of foreign travel," in which his photographic traps had been his companion.

As one fine picture followed another upon the brilliantly illuminated screen, it was particularly gratifying to the writer to see that an American gentleman could go to England, France, Germany, etc., and bring back with him as the result of a\* pleasant trip such a large number of good negatives, in many cases equal to the best foreign work. It required considerable pluck for such an undertaking, but the artist was amply repaid for his trouble.

These lantern entertainments given by

the Photographic Society have become very popular, and, thanks to the increased interest among the members, the supply of new pictures is never exhausted.

During the evening, some views of Portugal, contributed by Mr. Joseph W. Bates, were received with marked attention; also a variety of colored Centennial slides, from Mr. Edward L. Wilson, were greatly admired.

The exhibition closed with a number of most admirable pictures of animals, made from life by Schrieber Brothers.

The lantern was kindly supplied by Mr. L. J. Marcy, who gave it his attention during the evening. A noticeable feature of the exhibition was that but a single lantern was used, it being supplied with an automatic cut-off or winker, designed by the exhibitor to take the place of two lanterns,

and at the same time give an improved dissolving effect. The result appeared to be very satisfactory.

B. C. J.

#### THE PROCESS VENDER

VENDETH incessantly and reapeth an harvest each year greater than the last. He came in last January, just from Boston or some other place, and would sell to me "the process for 'oil miniature' work for fifteen dollars." Taking an old print and a stray piece of glass and some starch, we soon had a sample of our own; then reaching down an oil color, with a tuft of Canton flannel and tip of our little finger, we showed Mr. Process Vender that ours was not in want of any of his'n. He said, "Correct," and immediately proceeded to sell to two of our brother photographers his'n for the regular fifteen dollars each. But by their own testimony they took no orders.

Again cometh the process vender; this time from a city in California. His price was the same; and again we demonstrated that, during our years of apprenticeship with Father Rulofson, we spent our time for something. Again one of our fellow-photographers had the required sum to invest, and he owned some of his'n, No. 2. Going on with a most uncalled-for tirade against sundry persons and things, Mr. No. 2 caused me to suspect he might be a first-class process vender. So we quietly obtained "record of his arrest for stealing;" and, presto, Mr. Process Vender takes the next outgoing train.

From the above what a lesson we learn! It's the same old story year after year. Both were confronted by printed process at my desk and by ivorytype work, which, of course, requiring artistic skill to produce, is far, far superior. Is there never a way for us to say, "Vale! Mr. Process Vender?"

J. PITCHER SPOONER.

STOCKTON, CAL.

#### OUR PICTURE.

WE have pleasure in giving our readers this month another exquisite study from the studio of Mr. Henry Rocher, of Chicago. We have said so often what our opinion is

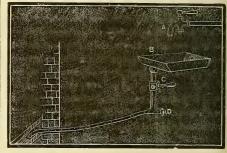
of Mr. Rocher's work that it would be mere repetition to give a further opinion. Like the work of Mr. Salomon, of Paris, Mr. Rocher's work seems to be so far ahead of the ordinary run as to almost bring him to a standstill, or in other words, it is as good as the present appliances of photography will enable anybody to do. We cannot see that Mr. Salomon has made any progress for a number of years; this is nothing to his discredit, for he is and was so far ahead that he can afford to rest until others reach him, and when they do we cannot see, and we do not suppose he can as yet see in what direction he will work to make further progress. So is it with Mr. Rocher. A number of years ago he attained to this great height in photography, and firmly and persistently carrying out certain principles which he adopted, he has had one continued round of success, and his results are well worthy the study of any ambitious photographer. He does not resort to splurgy and loud positions, which are unmeaning and entirely void of artistic merit, but he adheres strictly to art principles, and does not suffer himself to be carried outside of them by any desire on the part of the public for sensational contortions, or effective twists of the person, now so common among a class of photographers well known. His lighting and his posing and his composition are chaste and beautiful, and at the same time wondrously effective, and we commend the study of his works to every one. After considerable persuasion we have induced Mr. Rocher to prepare studies for photographers, and these we have offered to the trade for some time back; the demand for them does not indicate any great desire for improvement, yet we believe the day will come when they will be carefully studied and appreciated. It is our firm opinion that those who conduct business on the principles followed by Mr. Rocher, are sure to meet with the same success financially that he has met, and which he constantly enjoys. He is very lavish apparently in his expenditure for his accessories, which are the very best he can find, and which we understand are imported from Berlin; and in every accoutrement of his studio he spares no pains or expense to

get what will bring about the effects which he has in his mind. Our prints were made on the Dresden paper, and are quite as well worthy of study as prints, as the negatives of Mr. Rocher, and we therefore commend them as such.

#### LATEST FROM THE STUDIOS.

EDITOR PHOTOGRAPHER.

DEAR SIR: I send you to-day a diagram of the way in which I have arranged my waste water pipe, as I have always been bothered in the winter season by having the pipes frozen up, but my plan now works to perfection, and is as follows: A is the tap over the sink; B the sink; C is a stopcock which will hold the water in the sink



until it is full; then I let it out at once and then turn the stop again; D is a nut which may be removed in case the pipe should get clogged up with dirt or lint; a long wire may be run through from D to push away any dirt. My waste is a three-quarter inch gas-pipe, and works to a charm.

T. M. WELLS.

#### PHOTOGRAPHIC QUALIFICATIONS.

Our beautiful art is not appreciated as it should be by the public. It is filtered by too many such characters as Mr. Webster so fitly describes in *Mosaics*.

These natural artists, who rush into the business after a few weeks' practice, with the idea that they are to make a fortune with little or no work, advertise themselves as artists, and put out work, every line of which is a libel on the name.

They not only swindle themselves and every one with whom they come in contact,

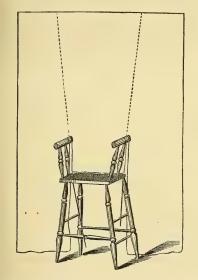
but are a disgrace to the profession and deserve the just indignation of every good worker.

When photographers work more for the love of doing fine work, and less for the sake of the filthy lucre, then will photography as an art advance, and we hope the day is not far distant when these sloppers will be obliged to step down and out, and to be a photographer, will require more cultivation and training than are necessary merely to focus an image or develop a plate.

GEORGE SPERRY.

#### THE WAY TO PHOTOGRAPH CHILDREN.

Too little attention is paid to this branch of business. The artist is usually very busy when the child is brought, and arises at the squall of the child and begins to scratch his head. Then, after a heavy sigh, starts for some cubby-hole, hauls out the remains of a chair resembling the one used by Adam in his infancy. The mother looks at the chair with a shudder, and clasps her hands over the child's mouth. The artist goes for a



duster, and an old coat for a covering. After the chair is dusted and covered as best he can, he seeks some branch of amusement, by the way of blowing an old whistle, escreaming, shaking keys, or pricking the clast string of some old fiddle. This, in tune

with the child, is music to the blind only, and to all looking on seems silly.

In order to do away with such nonsense, I call your attention to my baby posing chair. It is easily constructed of any ordinary high chair, and can be placed anywhere in the room. The curtain prevents the child seeing the head-rest when used.

S. L. PLATT.

# On a Neglected Method of Intensification.

BY J. CARBUTT.

In the British Journal of Photography for April 13th, under the above heading, will be found a very intelligent article, by Captain Abney, on the "Copper Bromide Intensifier." This mode of intensification has been in use in this country for some years, among those using negatives for photo-lithography and relief work; how long I do not know, or who is the author of it. I obtained it from a friend in 1874, since which time I have had it in constant use, but I do not think it has been used as strong as recommended by Captain Abney. Finding in my own practice that the use of a solution of nitrate of silver for blackening the whitened image was rather expensive, I sought to obtain a chemical reaction that should still be as effective without the expense, and the following extract from my notebook will explain it:

February 19th, 1875. Important improvement in intensifying line negatives. The cupro-bromide solution given me by Mr. Walker I have modified by substituting a 5 to 10 grain solution Schlippe's salt for the silver solution used to blacken the film. I find a very thin negative only required. It gives the most satisfactory negatives for photo-lithography and relief-plate work I have ever obtained. It is most valuable.

The formula is:

No. 1 Solution.

Sulphate of Copper, . . 400 grains. Bromide of Ammonium, . 100 '' Water, . . . . 20 ounces.

No. 2 Solution.

Schlippe's Salt, . . 5 to 10 grains.

Water, . . . 1 ounce.

The latter strength of salt for line work, and I find, when both solutions are diluted one-half, and No. 1 only allowed to change the tone of the deposit to gray, and not to bleach it, it answers well for half-tone negatives.

The color of the negative is changed to a deep red, and is very non-actinic. It should be flowed while damp, with a solution of gum arabic as a varnish.

#### SOCIETY GOSSIP.

THE INDIANAPOLIS PHOTOGRAPHIC ASSOCIATION met at Mr. Potter's gallery, May 7th, 1877.

Meeting opened with President Judkins in the chair, and more than half the active membership present.

The Secretary, Mr. Fowler, being absent, J. Perry Elliott was chosen Secretary protem.

Minutes of last meeting were read, but there were objections to them, and on motion of J. Perry Elliott, the consideration of them was postponed until our next meeting, when it is hoped that Mr. Fowler may be present.

The Committee on Centennial Stock made final report, and presented the certificate for five shares of stock—a duplicate of the one lost in the mails more than a year ago, and said they had acknowledged the receipt of same. Report concurred in, and committee discharged. On motion of Mr. Adams, a unanimous vote of thanks was tendered to Mr. Edward L. Wilson for his kindness in assisting the committee to trace the lost certificate of stock.

The Committee on Developers reported encouraging results in their experiments with a solution recommended by Mr. Elliott, in which sulphuric acid and nitrate of potash were used instead of acetic acid. Mr. Potter recommended a developing solution as follows: Sulphate of iron and sulphate of iron and ammonia, one pound each, and of sulphate of copper, four ounces, acidified in the usual way.

Mr. Elliott gave a formula for using bromide of potassium in collodion by which the precipitate may be entirely avoided, and by unanimous vote of the Society, he was requested to record the same with the minutes of the meeting, and it is as follows: Dissolve the salts, both iodide and bromide, in a small quantity of water, in a bottle large enough to hold the amount of collodion you desire to make, then take your ether and alcohol, mix, and pour them into the iodizing solution, and the thing is done. Do not forget and reverse the order, unless you want the precipitate, for in spite of all the "authorities" to the contrary you will surely get, it. Mr. Judkins promised to print a number of potographs from the "Transit of Venus" negatives which were promised the Society some time ago. Mr. Elliott suggested that he thought that the public ought to be a good deal better informed on the subject of photography than they are at present, and that photographists might post them at little or no cost by writing readable articles for the papers, especially our weekly papers, and the members present seemed to agree with him, and Mr. Potter suggested that it might be well to appoint some one to prepare a paper to read before the Association, and if it was thought proper, the Society might recommend its publication. It was tacitly agreed that this matter should receive further attention at our next meeting. Adjourned to meet at D. L. Clark's gallery on the evening of the first Monday in June.

J. PERRY ELLIOTT, Secretary pro tem.

BOSTON PHOTOGRAPHIC ASSOCIATION .-Studio of J. W. Black, May 4th, 1877. Regular monthly meeting; President in the chair. The records of the previous meeting read and approved. Mr. Thomas Lewis was elected to membership. Mr. Benjamin French introduced a new Voigtlander objective for the purposes of landscape photography, copying, for architectural subjects, and for groups in the studio, as well as outside. It is unrivalled. It is entirely free from distortion, chemical focus, and ghosts, and the picture produced by it is as mathematically correct as it is possible to produce with any lens. Mr. French said he would like to have any of the members try the new lens, and bring samples at our next meeting.

Mr. Albert S. Southworth was then called upon by the President, and addressed the members, from which address we make extracts as follows:

"There are two indispensable elements required by the artist, viz., light and vision. Light is an element of nature, existing without and independent of ourselves, free to the use of our natural and rational faculties. Whilst vision is a part or power of, and belongs exclusively to, the individual. Having the perfect sense of vision, the beautiful colors of the external world and the infinite variety of the forms of natural objects are presented to us through this sense for contemplation and enjoyment.

"The human mind is progressive, receiving at first single ideas and confused impressions through the visual organs, afterwards enlarging and expanding, until a general or universal view is embraced, and comprehended with avidity and delight. From a single color to a union and combination of all the tints of the prism, from a single line, or form, or individual, to a multitude of forms and objects, all grouped in the never-ending arrangements of animated nature. The uses of light and vision come to us at first as it were accidentally, but after a little experience they become a necessity indispensable to our happiness; and the deprivation of either would be a calamitous infliction. By attention and study we increase our faculties of observation, and become conscious of new delights and new influences, in the contemplation of nature as spread around us and laid at our feet. We soon learn that nature is ever changing, that the forms and colors of vesterday have to-day become new in their groups and effects, and all experience teaches us that this changing is always in progress over the external world. Observation teaches us the beauty and variety of those changes, and we soon learn to view, passing before us, an all-pervading panorama, and begin to feel that we can comprehend only a very limited part or portion.

"Our profession is to catch here and there some faint outline or representation, that we may preserve for a space that part of the view for which for the moment we think we have some interest. The manner of

doing this, as it at present interests us professionally, is by the aid of the newly discovered art of photography, by representations in light and shade, or chiaroscuro, which, defined from its original Italian, is compounded from chiaro, 'light,' and oscuro, 'dark.' These terms appear almost inseparably connected, as, if we clearly perceive either, we of necessity have at the same time a clear conception of the other; the presence or sense of one being not supposable but with the absence of the other. Vision is properly the act of seeing or perceiving external objects by and through the organs of sight, or the eyes. The terms vision and seeing, for our purpose, mean the same thing, though seeing may be considered the acting of the visual organs, and vision the resultant effect of their action.

"To analyze fully these two terms, vision and chiaroscuro, would require volumes upon volumes upon science and philosophy. The field for the study of light alone is almost illimitable in extent, as well as exhausting and sublime in its character, standing next and nearest to its creative source.

"The subject of my address, then, may properly be stated as vision or seeing, and light and shade. With their science and philosophy I shall have little to do, whilst my main effort will be directed to the point of impressing you with the importance of devoting your most energetic and persevering efforts to obtain a practical knowledge of their proper and most effective use.

"No time need be spent before such an audience as this in explaining the object of obtaining such knowledge. To all and each it is of vital interest and paramount concern, in a professional point of view. All possessing the ordinary visual organs should be able to see nature as it is. The power to comprehend artistically any landscape presupposes the power to comprehend artistically any other. The power to judge and appreciate beauty implies a power to judge deformity also, and every intermediate grade. The capability of determining the . existence of beauty of form and expression in one person is followed necessarily by the same power in the same respects to estimate the same or opposite qualities in all persons. The power to estimate beauty in nature is

the same as to estimate its representation by whatever methods it is attempted to be shown, whether in models or drawings. But all experience tells us that these are faculties not often possessed, and when so possessed are acquired only by a long, careful course of training of the vision, placing such a scholar next in acquirements to the artist who is able to produce the model or drawing of nature.

"He, then, who can see nature as a picture stands next to him who can make such a picture. But not all who attempt to model or draw have learned to see correctly. And, indeed, but very few, if we judge by their productions. History has recorded but few names, of any one age, renowned for modelling, or drawing, or painting in colors; and, comparatively speaking, there are but few renowned names handed down to us of eminently distinguished sculptors or painters, and but a very small number of these have rivalled in any degree nature herself, but have fallen far behind her. Why has it been so? Not because of the mechanical difficulties of execution, for the world is full of mechanical models far surpassing any niceties of sculpture in its chiselling and smoothing, and of far greater exemplifications of physical ability than the mixing of the colors or outlining of the pictures that cover the walls and ceilings of the Vatican."

Mr. F. C. Lowe moved a vote of thanks to Mr. Southworth for his very interesting address, which was unanimously passed.

Meeting adjourned at 10 o'clock.

ERNEST F. RITZ, Secretary.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held May 3d, 1877; the President in the chair.

The minutes of the last meeting were read and approved.

The report of the Committee on the Public Lantern Exhibition was read and accepted.

Three hundred and fifty tickets had been issued, and one hundred and sixty-one slides exhibited Exhibition given April 20th, at the Franklin Institute.

On behalf of the Committee on Outdoor

Meetings, Mr. Barrington reported the results of inquiries as to suitable places, etc., etc., which the committee had made since the last meeting. After some discussion, it was resolved that the committee be empowered to engage a tugboat for a day's excursion on the Delaware, on Friday, May 25th.

On motion, Mr. Hacker's name was added to the committee.

Messrs. Samuel Sartain and Henry M. Clifford were elected to membership.

Messrs. Corlies and Dixon exhibited some prints from washed emulsion negatives.

Mr. McCollin exhibited some excellent negatives on 14 × 17 plates, made with washed emulsion. Exposures about three minutes with a twenty-one inch focus, rapid rectilinear lens, smallest stop. Also a direct negative on a plate 18 × 22, which in all respects was fully equal to wet.

Dr. Seiler exhibited an ingenious foldingcone attachment for the camera. It was on the bellows principle, and fitted with light brass braces to stiffen it when expanded. When folded it could be easily carried in the pocket.

On motion, adjourned.

ELLERSLIE WALLACE, JR.,
Recording Secretary.



GENTLEMEN: Can you tell the cause of these red spots appearing on the prints, or a way to get rid of them? I do not see them in printing, and sometimes I do not see them until the print has dried after mounting. I have never noticed them on any paper except S. & M. Dresden double. I have submitted it to different kinds of treatment and the spots visit me just the same. I immerse the prints first in warm

water; in fact I use warm water all through, for cold water softens the albumen, and it comes off. My toning is gold neutralized with lime-water. Fix with soda, 100 grains to the ounce; then put into strong, salt water.

Silver bath, 40 grains; silver thirty to forty seconds.

VERMONT.

SINCE a couple of months I have been and still am troubled with the following results (I'd better say defects), which manifest themselves generally during the fixing operation.

I use the brilliant N. P. A. Dresden paper. Sensitize on a neutral bath, 50 grains. Fume from ten to fifteen minutes.

The printing is excellent. Wash in one water; then acidify with acetic acid for five or ten minutes; then wash again in one or sometimes two changes of water; then tone; and everything with satisfactory results. "But here comes the trouble." As soon as the prints have remained two or three minutes in the hypo, the albumen dissolves by forming a granular surface (like ground-glass) all over the print, which will easily come off by touching with fingers; not in a peel or film, but rub off granulated and soft; and if a few prints escape being rubbed when finished they look dead, and won't burnish worth a cent!

I have tried all kinds, and modified to all grades of strength the toning and fixing baths, but apparently with no marked influence. I have added a few drops of carbonate of soda solution to the fixing, but no noticeable change.

Now then, if any benevolent brother in the craft could throw some light on this subject, and kindly reflect it on the sufferer through your "Sphynx," they would hugely benefit a brother in trouble.

# A NEVADA SUBSCRIBER OF THE Philadelphia Photographer.

P. S.—The water I use for the washings is considerably hard, being full of lime, and running through alkali ground; but still had no troubles the previous four years.

SPHYNX: Tell P. to use pure water, and

he will not be troubled with the albumen coming off in the water.

Some water looks pure, but is not. I use well water, and have no trouble; but if I substitute cistern water I am sure to be troubled as he is, as almost all cistern water contains a large amount of organic matter, and still looks pure.

G. W. L.

In last number of journal, in "Sphynx," I notice a reply to W. H. L.'s inquiry in regard to scratching in burnishing. The writer says, "discard the Slee mounts."

In justice to the Slee mounts, I desire to say I have used them several years and had no trouble from scratching other than that occasionally caused by dust or grit, from not properly cleaning the burnisher. On the contrary my cabinets mounted with starch-paste were often badly scratched, when my cards on prepared mounts were entirely free. I now use prepared cabinet mounts also, and have no trouble from scratches.

If G. S. and W. H. L. will use the lubricator recommended in your last by R. W. Dawson, see that it is free from grit, and the burnisher free from dust, and that the roller does not touch the burnishing-plate, they will have little trouble from scratching with Slee's or any other mounts.

Any one having used the prepared mounts, knowing how to use them, would as soon think of discarding them and returning to the tedious and mussy pasting process, as of going back to the old stagecoach in preference to the iron horse.

A. G. WHEELER.

HEMPSTEAD, L. I., N. Y.

The advice of Mr. Sperry to W. H. L. in your journal of May 18th, to "discard the Slee mounts," in order to avoid scratching in burnishing, hardly requires a reply from us. The fact that between five and six millions of the mounts were sold the past year, and that such names as Abram Bogardus, of New York, J. Frank Pearsall, Brooklyn, J. F. Ryder, Cleveland, J. H. Fitzgibbons, of St. Louis, and a host of others, are among those using them without experiencing difficulty, is sufficient refutation of Mr. Sperry's assertion that they are the cause of W. H. L.'s troubles.

Having used them ourselves ever since their introduction, we know him to be in error. Probably most photographers using burnishers experience the same annoyance arising from various causes, dust on the burnisher, grit in the lubricator, or, as recently in our own experience, when using cabinet mounts (not prepared) with gilt edge or border, from particles of gilt adhering to the burnisher. Had they been prepared, Mr. Sperry would probably have charged the trouble to the "Slee mounts."

We are assured by photographers here and elsewhere, that they have been less annoyed by scratching in burnishing since using our mounts than before, and such has been our own experience. If Mr. Sperry will make careful investigation, he will probably find his trouble arose from some other source. He should at least be sure before making so positive and sweeping an assertion.

SLEE BROTHERS.

POUGHKEEPSIE, N. Y.

#### SOME THINGS SEEN AND FELT.

No. IV.

In the last Philadelphia Photographer something was said about toning, as to quantity of gold used. I have "seen and felt" the bad effects of waste and carelessness in this department so much that I propose to treat of it more fully. In past times I remember well how I used to albumenize what little paper was required for our use myself, and how delighted I was with it, and how much pleasure it gave me to do it. I would cut a sheet down into quarters and float it upon the albumen, which I prepared to a proper consistency, with a certain proportion of salt to the ounce of solution (neither of which I now remember), and would then suspend in the air until dry. I would then take it home and, after supper, get out the table, spread paper upon it, and upon that spread a few thicknesses of the albumenized paper. Over that I would lay clean white paper, and pass over that a smoothing-iron heated to about the degree used in ironing clothes. Your wife, mother, or sweetheart can give information bearing upon that point. The use of heat was abandoned

when alcohol was used in the silver solution upon which the paper was floated, as it was claimed that the alcohol coagulated the albumen, making it unnecessary to cook it by heat. Whatever it was that lay at the bottom of it all I will not pretend to say, but this much I will say, "that I never saw any blisters until within the past three years," and I never saw more brilliant albumen paper than that I made "before the war." The toning bath used then was one made of gold, soda, acetate of lead, and sometimes salt. The prints were immersed into this bath without previous washing, and as a matter of course silver would accumulate in the bath, but the only course we pursued then was based upon the idea that the bath got weak, and we would add the ingredients as we judged they were needed. I have a great many prints now made on the paper referred to above, treated in the manner described, and can see but very little change in them from what they were at first. I never did, however, work carelessly or slovenly, and cannot recommend any process to one who does. There is now so much ink being spread over the carbon by those who pretend to know something about it, that I refrain from saying anything upon its merits. I only introduce it here by way of parenthesis, having seen so much hilarity over the writings of the "Argentums," that I suppose the Carbonites will have another fit over what I have written. I ask those who are disposed to laugh over it to glance back twenty-five years, and report what photographic literature they can discover that would enable them to do any better than we who were then tussling with the infant, yelept photography, in 1853. But all is different now. Albumen papers in great variety are now a commercial article, as are also nearly all compounds used in the business, and you only need to have a little cash to set up a "picture shop." And yet we are not happy. 'Cause why? Well, here come the troublesome blisters, and they are a nuisance, to be sure. Twenty-five different plans to prevent them (remove them you cannot) are known to work well, and just when you think you have cured them, and got well, all at once you break out again

worse than before. You have relapsed, and there seems no hope for you. The twentyfive remedies have lost their effect, and away you go on the hunt of remedy twentysix. When you find it, crow! Chapman!! crow!!! Blisters, from the size of a pinhead to the size of a man's head, in every conceivable shape and color, using up a day's work in no time. Now, Dr. Albumenizer, what are you going to do for us? You are at the bottom of this thing; this trouble, this pullback, this curse, this, this -yes, that is it, you name it, for I cannot do it justice. It is all very well for Mr. A., B., C., and on down the whole alphabet, to hand up their prescriptions, for, as I remarked before, we have twenty-five of them, and yet this trouble breaks out on us notwithstanding. I would be happy if these doctors would rise and explain.

I. B. WEBSTER.

#### A CHALLENGE TO SILVER PRINTERS.

MONTREAL, May 14th, 1877

TO THE EDITOR OF THE PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: To give a practical turn to the wordy discussions that have been raging over the carbon processes of Mr. Lambert these few months back, I will offer a challenge to the advocates of silver printing, and who are non-licensees, the stakes to be \$500, to be deposited in a bank, and to be decided upon by the three first officers of the National Photographic Association. The condition of contest to be as follows: For the best illustrations for one or all of the journals published in the United States, on condition that a remunerative price be allowed for the pictures. In the event of the journals not accepting the pictures for illustration, the challenge shall then be for the best fifty chromotypes against a similar number of silver prints. Should any one of the journals accept, the competing pictures are to appear simultaneously in the same journal for July or August issues; these being two of the hottest months in the year, are chosen that the practicability of the Lambert processes may be established beyond a doubt even in warm weather.

The subject shall be a bust of man, woman, or child. The points of competition shall be softness, depth, and roundness, together with the general effect of the finished picture as a whole.

The judges to be eleven in number, consisting of three silver printing advocates, who are non-licensees, three carbon advocates who are licensees, two amateur photographers, two artists, and one chemist, all to be chosen by the three principal officers of the National Photographic Association.

I might have added a few more points for competition, for instance, that the inside of the mask of the picture should be full "glacéd," and outside of it, in mask finish, also a combination of different shaped and tinted borders, with the printing in of the name and address, etc., etc., be added. But as these complications might be more than a silver printer would care for trying, and as I do not desire to put any obstacle in the way of an acceptance of the challenge, I will forego those, and many other points of excellence, knowing them to be beyond the power of silver printing.

Yours, respectfully,

JAMES INGLIS.

N. B .- A copy of this challenge is sent to all the journals in the United States.

#### MR. INGLIS'S CHALLENGE.

ABOVE we print a challenge from Mr. J. Inglis, of Montreal, to a certain class of our readers, in order that the advocates of the carbon process may have every fair chance to establish themselves, if what they claim is good, and below we append the answer which we wrote to Mr. Inglis on receipt of the challenge:

DEAR SIR: I have yours of May 14th, embodying a challenge to the photographic fraternity (I suppose of the United States and Canada; you do not say so). I do not see how your challenge in its present shape is going to secure any practical decision as to the merits of one process or another; at least, if the judgment should be in favor of the carbon printing, it will not prove the carbon process to be the most economical and the best for the photographer to work during the whole of the year, neither will

it prove, if decided in favor of the silver printing, that the carbon process is of no value. Another thing which makes your challenge practically of no avail is the difficulty in securing the eleven which you propose, to meet together at any one place to pass judgment, unless they could all be from one city. Moreover, your points of competition are very limited, namely, "softness, depth, and roundness." It seems to me that the points to discuss should be left to the jury, for a print may be soft and have beautiful depth and roundness, and yet be very destructible, as most of the carbon prints that I have seen with glacé finish are.

However, I will probably print the challenge, and note my objections to it.

This embodies our ideas respecting Mr. Inglis's challenge, and, while we print it, we do not expect that he will meet with any acceptance, for the thing is put in such an impractical shape that every photographer would protest against it, we think. For our part, we shall be very glad to see the contest made, and to have the pictures put side by side. We think, however, further, that the fair test would be to make both prints from the same negative, so that there could be no discussions as to the different merits of the negative. If Mr. Inglis's challenge is allowed to fall to the ground without any acceptance or contest, do not let it be supposed that he will have any just cause for claiming that no one dare accept it. We believe there are plenty who will take up the glove and try the contest with him, provided his offer is modified as we have suggested in our letter to him. If they do, we agree to publish the pictures; though we do not see what such a contest will prove. It cannot, under any circumstances, establish what Mr. Inglis seems to think, namely, that the carbon process is the most advantageous for American photographers to work all the year round.

Labor Saving.—Herr Fritz Luckhardt, of Vienna, uses cast or moulded glass boxes, with grooved sides, in which he places his plates which have already been used, to be cleaned with acid, of course.

#### OUTLINES.

DEAR PHOTOGRAPHER: I WISH to thank Mr. Spencer for his kindly reply to my "queries" about "outlines;" but first I hasten to assure him, there was not the slightest suspicion of sarcasm in my mind when speaking of his article; and if my would-be playful allusion to his "Commandments" seemed to have that tone, it did us both injustice. I think, if his "Commandments" were framed, and hung in every gallery, and lived up to, they would be a great benefit; but still I cannot quite agree with him about "outlines taking care of themselves." Although I have no doubt he reaches the same result in practice, for we often see very good work done after bad theories, and sometimes very bad work done after good theories, yet it seems necessary that, as a rule, other things being equal, the better theories well understood always better the results, and for myself I believe, that if all photographers in making positions would form the habit of mentally separating the outlines from the details of their pictures, they would derive much advantage therefrom.

By outlines I mean all the outer lines of each figure which cut against the ground, entirely independent of the detailed forms, which contribute each a part to make those outlines.

I mean just such lines as an artist would sketch with his pencil on blank paper to outline his subject before filling in any detail.

I don't think any artist ever composed a picture by drawing first the details, letting them grow from centre to circumference, thus forming the outline by gradual accretion of those details; but in all cases they do just the opposite, secure the outlines, then fill in the detail; and I am sure photographers would be benefited by mentally doing the same thing: arrange and secure first a correct outline, always being sure that in photography detail will largely take care of itself. Elaborate detail is both the "glory and the shame" of photography.

The country boy who said he "could not see the city, there were so many houses," expressed what we are often made to feel that we cannot see the picture, there were

so many details. Three-quarters of all the retouching we are compelled to do is for obliterating the offensive and impertinent details, that thrust themselves forward in each face so prominently that they confuse or hide the likeness, and it is only when they are cleared away that the picture appears.

I think a photographer who has not practiced sketching, and never cultivated the faculty of mentally separating the outlines from the details of his compositions, is ever quite conscious how the outlines of his figures would often look when so separated, and would doubtless find it instructive to carefully trace on paper, from his negatives held against the light, the bare and exact outlines of his figures, then study the importance of those lines in forming the picture, with all its harmony of balance and proportion.

But if equally as good results can be as readily obtained by other methods, I shall have to admit that what I have deemed of importance is simply a matter of indifferent choice.

E. K. Hough.

NEW YORK.

#### GERMAN CORRESPONDENCE.

Carbon Print Improvements—New Lenses—
Machine for Cleaning Plates—Substitute
for Sunlight — Electric Light — Simple
Method of Enlargement—Result of the
Observations of the Transit of Venus—A
New Invention—Acknowledgment of American Photography.

The carbon print claims yet the most lively attention of photographers. But the number of those making in reality carbon prints for the public is indeed a very limited one, for the difficulties of the process do not encourage a person to join this small number, and there is a want of operators who understand the process. There is, however, much in favor of the carbon process. It produces fine glass pictures in a more simple manner than collodio-chloride of silver; it permits the reproduction of negatives; it delivers durable pictures, and this point is of importance for some purposes, although with some pictures

we would not like a too long extent of durability.

Every photographer, even if he has not the intention of giving up the silver print, is obliged to take notice of the carbon print, a circumstance rendered more difficult by certain patents. It is certain that some remaining difficulties will be overcome yet. as soon as more photographers are making use of the process. One of the greatest faults of the process, which especially troubled American photographers the most, was the difficulty of sensitizing and drying the paper in warm summer weather, for often the gelatin, loosened in the chrom-bath or the carbon coating, runs down while drying, and very often the time of drying was such a long one that the coating was decomposed and spoiled.

These bad circumstances can now be prevented by applying alcohol. Boivin proposed at first to add alcohol to the chrombath. I have tried it, and succeeded very well. I took

This bath loosens the gelatin much less than the pure water-bath, and thereby a great difficulty is considerably reduced. Besides, the glycerin contained in the paper is less dissolved, and the paper remains more pliant. Boivin asserts that paper sensitized in an alcohol-bath dries quicker; and, indeed, it requires only three-quarters of the time that paper prepared in a water chrom-bath does. We can shorten the time of drying by putting the paper after sensitizing in strong alcohol for about five minutes. Then it will be dry in one hour. This method permits working as quick with carbon tissue as with albumen paper. I sensitize in the morning at 9 o'clock, and at 4 o'clock in the afternoon already I have finished some pictures. Although the drying of the carbon tissue takes a little longer time, the time of copying is only one-third that of the silver-printing process; and even carbon prints with double transfer can be ready just as soon as silver prints, which on account of a most careful washing have to remain in the water over night.

Notwithstanding the bad times, there is no end to new enterprises. The optical establishment of Busch, at Rathenow, which has already made several excellent portrait instruments, has recently brought a new aplanatical objective into the market. The same is in every respect equal to Steinheil's objective. Soon afterwards Voigtlander appeared with a similar objective before the public, which, indeed, produces very fine pictures. Perhaps this will lead to a new construction of a portrait objective. It is anyhow very strange that since 1844 we have made no progress in portrait objectives. The old one, at first calculated by Petzval (who celebrates now his forty years' jubilee), is, till this time, not displaced by a better one, although we have made much progress in other respects in photographical optics.

I must mention a new step forward in the process of cleaning plates. The photographical chemist, Grüne, at Berlin, is cleaning his plates by a machine, which consists of a wheel, on which is fastened a kind of brush all around, and beneath it the plates are moved along by a pusher. The wheel is turned by hand, and the plates, before putting in, are daubed with a dough of infusory dust and water. This infusory earth is found abundantly in the Luneburgh Woods, and forms a porous and very fine and soft silicious earth, which readily absorbs liquid stuffs. In this manner we succeed, indeed, in cleaning plates which otherwise cannot be cleaned.

The spring has brought us so far only storm and cloudy weather instead of sunshine. It is a pity that the surplus of sunshine in America cannot be filled in barrels and sent to us; we would pay a good price for it. We are hunting yet for some substitute for sunlight; inflammable gas, magnesium light, electric light, etc., are applied for preparing enlargements. Recently the greatest attention is turned again to the electric light, since Dr. Siemens, the renowned "electrician," has invented a new magneto-electric machine, which, kept in motion by an engine of four-horse power, produces an excellent light. Such a machine is in use already in the atelier of Mr. Winter, at Prague. I had occasion to test this light photometrically, and have found that it can completely copy, without reflector, a carbon print in seven minutes, at a distance of nine inches, which shows that its effect is the same as the burning of 1-3 grammes of magnesium wire. The price of such a machine is about \$1000, and therefore the photographers, in order to save this expense, are searching yet for a cheaper method of manufacturing enlargements without sunlight. Mr. Liebmann, of this city, a young and skilful photographer, operates most successfully in manufacturing enlargements by means of collodion without a camera. He has a small room right under the roof of the house. Through the ceiling of the same he made an opening, in which he places horizontally the negative to be enlarged. Vertically beneath it he has fixed a portrait objective which throws an enlarged picture of the negative on a table standing under the objective. In the table he puts the collodionized and sensitized plate. Camera, cassette, etc., are not necessary, for the diffuse light of the sky is sufficient for enlargements. The plate can be sensitized and developed in the same room, and the whole concern is a very convenient one. By this process he receives, of course, at first a positive; but Mr. Liebmann prepares by this a negative with little trouble; that is, he copies from it a carbon tissue in a printing-frame, which he transfers on glass. In this manner he receives a negative which is to be put two minutes in a solution of 1 part permanganate of potash in 500 parts of water. By this it is strengthened, and delivers excellent copies on albumen paper, which hardly can be distinguished from pictures directly taken.

Three years have elapsed since the observation of the transit of Venus, and we have heard but little about the result, and what we hear is not good news. The measurement of the French Venus plates has shown no sufficient results, though the preparations had been most carefully made. About the results of the English, American, German, and Russian expeditions we have heard nothing yet, but it would be gratifying if they could make favorable reports.

The German Reichstag is deliberating

now about a patent law which will be similar to the American. When that is published, we will be overwhelmed by photographical patents. A new invention is now already advertised in the papers, which makes a great sensation; it is called " Poykylo-photography " What that means I do not know; certainly the name is something new, and, of course, qualified to impose upon the public who understand nothing about the affair. The pictures are nothing else but photographs made transparent in some way, and then colored on the back. The latter is done very skilfully, which produces the effect of the pictures, not the process itself, which in similar manner was executed already by Braun, at Dornach, Wunder, at Hanover, and others. friend Prümm, the Vice-President of our society, went over to Dresden, and has seen the pictures. He had also the honor to become acquainted with the inventor, the poykylo-photographer, Mr. Schuhmacher, and found out the sum which he is asking for his American patent, namely, \$80,000.

In the last meeting of our society the pictures of Mr. Kurtz, at New York, made a great sensation Such excellent genré pictures as the "Night in May," and so artistically executed photo-crayons have never been seen here before. This is a new triumph of American photography.

Very truly yours,

DR. H. VOGEL.

BERLIN.

#### FRENCH CORRESPONDENCE.

A New Process of Diminishing Exposure—
Mons. Chardon's New Emulsion Process
— The May meeting of the French Society
of Photography—A Novel Filtering Apparatus—A Vegetable Gelatin discovered
—A new Drying Chamber—A Remedy
for Pinholes—A new Heliostat.

A PROLONGED absence from Paris prevented me from giving my epitome of photographic and scientific news last month in time for post.

The photographic community of France is very much occupied at present on a new

system for the shortening of exposure, invented by a gentleman named Boissonnas, of Geneva. It consists in un tour de main. which with the ordinary bath, etc., it has for result the shortening of exposure by half that required by the ordinary system. It is not patented, but is a secret process, and sold and taught only to those who will give their word of honor not to divulge it to others. The French are in general great enemies to secret processes, but this appears to be an exception, the reliability of the inventor being a great guarantee to the purchaser. One of our first-class photographers, Mr. Franck de Villecholle, told me that he was enchanted with the results that he could obtain. I saw yesterday some admirable specimens of children's portraiture, "the mamma's darling," in every possible position, such as crying, laughing, playing with animals, etc.

Emulsions are also the order of the day. It may be remembered, in a former communication to the Philadelphia Photographer, I mentioned that a prize of 1000 francs had been offered by the Photographic Society of France for the best emulsion process. In their monthly meeting of the 6th of April, the prize was awarded to Mons. Chardon, not that he claimed anything new, but that he had combined the results of the improvements made by others, and composed the formula for a very reliable emulsion. Up to the present, manipulants have not been able to obtain regular as well as certain results with emulsions; is it that they always employed the ordinary cotton, thinking that the pyroxylin could not resist a second precipitation? Mons. Chardon experimented with precipitated cotton, and it is doubtless to this cause that the principal advantages are due.

Mons. Chardon makes use of two kinds of cotton, which he calls "pulverulent" and "resistant." The pulverulent is made with sulphuric acid and azotate of potash; the resistant is prepared with mixed acids. He takes four times more of the pulverulent than of the resistant to form the collodion. I have found an advantage in employing one-third of the resistant to two-thirds of the pulverulent.

Mons. Chardon's formula is as follows:

#### Collodion.

Alcohol,						14	ounces.	
Double B	romid	e of	Cadm	ium a	nd			
Ammon	ium,					24 g	grains.	
Bromide of	of Zir	e, dr	ied,			24	6.6	
Pyroxylin	(No.	1, p	ulver	ulent).	, .	40	4.6	
6.6	(No.	2, re	sista	nt),		20	. 6	
Ether,						31	ounces	3.

#### Formation of Emulsion.

Seventy-six grains of nitrate of silver (dried) is dissolved in half a drachm of distilled water; when perfectly melted, an ounce and a quarter of alcohol is added. The silver solution is now poured gradually into the collodion, shaking all the time. This emulsion is allowed to remain in that state at least thirty-six hours; it is then analyzed, and ought to contain a slight excess of nitrate of silver. In order to neutralize this excess of nitrate, one drachm of the following collodion must be added:

> Alcohol. . 14 ounce. Chloride of Cobalt, . 75 grains. Pyroxylin (No. 2), . 15 . l½ ounce.

In pouring a few drops of the emulsion into distilled water, this water, when poured into a solution of nitrate of silver, should and must give a milky appearance to the latter; that is to say, the emulsion, after having been corrected, must not contain a free nitrate of silver, but rather an excess of chloride of cobalt.

The emulsion is now poured slowly into a large porcelain tray containing a large quantity of cold water, taking care to beat it with a glass spatula all the time.

[Later experiments have proved that it is much better to pour the emulsion into hot water instead of cold; the cotton holds the bromide of silver much better than with cold water. Mons. Chardon agrees with me in that appreciation.

The product is well washed in two or three changes of water and left to dry.

The powder is re-emulsioned by taking

Alcohol. 1 ounce. Powder, . . 18 grains. Quinine, . . . l grain. Ether, ½ ounce.

When dissolved, it is filtered through cotton; it is then ready for use.

Mons. Chardon has modified the alkaline development to suit his emulsion.

Five different solutions are made.

Ι			

Water,						15,400	grs.
Carbona	te o	f Amı	nonia	(pur	e),	308	6.6
Bromide	of	Potas	sium,		•	7	6.6

	140	. Z.	
Pyrogallic Acid,			154 grs.
Alcohol,			1540 "
	No	3.	
Water			1540 and

Bromide of Potassium, 15 2-5

A saturated solution of Bicarbonate of Potash.

Distilled	Wate	er, -		1155 grs	
Alcohol,				385 ''	
Glucose,				154 ''	

After exposure the plate is covered with a solution of alcohol, and then washed until all apparent greasiness is gone. It is then plunged into a tray containing (supposing it to be a small plate) 1540 grains of No. 1 and 35 grains of No 2; this mixture must be made only at the moment it is to be employed. The image appears rapidly, and does not fog in the least, if the preparations have been properly handled.

As soon as the details have become apparent, it is necessary to add 231 grains of a solution composed of 77 of No. 3, 77 of No. 4, and 77 of No. 5. The image will now intensify rapidly; if it do not gain sufficient density, No. 5 is added until the desired effect is obtained.

A solution of hyposulphite of soda is employed to fix the image.

The French Society held their general meeting on Friday last, the 4th inst.

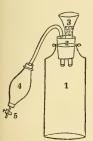
Mons. Andra exhibited some very fine negatives obtained by the emulsion process of Mons. Chardon.

Mons. Comte presented a very ingenious apparatus for the filtration of albumen, collodion, etc.

No. 1. A bottle of any capacity whatever.

- " 2. An india-rubber stopper.
- " 3. A glass funnel.
- " 4. An india-rubber air-ball.
- " 5. A stopcock.

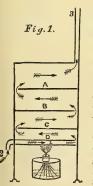
A tuft of cotton is put into the neck of the funnel, and the solution to be filtered



poured upon its surface. The air-ball is pressed, in taking care to open the tap No. 5; the latter is then closed; the elasticity of the india-rubber ball draws a part of the air out of the bottle. The atmospheric pressure then acting upon the surface of the liquid in the funnel, forces it

through to the filtering cotton, and thence into the bottle.

Mons. Stenfort, in his botanical studies on sea-weeds, has discovered a very valuable product for photographic manipulations, that is to say, a vegetable gelatin, which can resist a higher degree of temperature than the ordinary gelatin. If, said the inventor, a certain kind of sea-weed be taken, dried, and pulverized, in taking 539 grains of the powder thus produced, and dissolving it in 15,400 grains of water, by pouring it upon a sheet of glass in the same manner as collodion, and letting it dry, a pellicle of vegetable gelatin, is produced, which can advantageously replace the ordinary gelatin for carbon work: moreover, this vegetable gelatin takes and holds all kinds of his in a most satisfactory manner. . . . Who knows what progress this discovery will make in our art in carbon and gelatin emulsion work?



Mons. Harrisson, Jr., presented the Society with the model of a drying chamber for drying carbon tissue, gelatin emulsion and dryplates.

Diagram 1 presents a side view of the apparatus No. 1. A sheet-iron bottom is heated by a spirit or gas lamp, the cold air enters by No. 2, and passing over the hot plate, is heated, and follows the direction of

the arrow until it makes its exit by the chimney at No. 3.

In the second diagram, the front of the apparatus is seen. A, B, C, D, are the shelves

upon which the objects to be dried are laid. The door No. 3 is closed; this door pressing against the shelf B, closes the communication, and compels the air to take the direction of the arrows as seen in

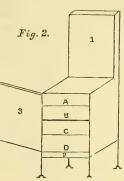


Diagram 1. The value of this apparatus needs no further comment.

After very many experiments upon the cause of pinholes, I would advise the readers of the *Philadelphia Photographer* to dissolve their iodides and bromides in absolute alcohol. That is to say, make a sensitizing solution to be afterwards added to the normal collodion. The sensitizing solution must be well filtered; by this means all the subsalts will be eliminated, and that annoyance of pinholes will be heard of no more.

Mons. Vrazmowski presented the Society with a new "heliostat," a-very simple and ingenious apparatus, intended to reflect the sun's rays to a fixed point during the time that the sun is above the horizon, notwithstanding the diurnal motion and the summer and winter solstices. It is so simple that an ordinary workman can set it going, and by looking at a certain figure, he can find the image of the sun without the ordinary calculations in general use for that purpose. The instrument is no larger than a small timepiece, and not very complicated, so it is probable it is not very expensive, and within the reach of all who occupy themselves with photo-micrography, etc., for which science it will be a valuable ac-E. STEBBING. quisition.

Paris, 3 Place Breda, May 6th, 1877.

THE war against the carbon patents continues to rage in Great Britain.

#### PHOTOGRAPHIC NEWS.

Mons. Andres recommends the following method for the prevention of blisters in albumenized paper, as follows: Pour into a bath some rectified spirits of wine and distilled water in equal parts. After the washing operation which follows the toning, the prints are plunged into this bath, which may last a long time. The immersion of five minutes suffices, and then the paper will be seen to be more transparent. After this bath the prints should be washed once only, and then fixed and finished in the ordinary way.

Photography is used by the police department in Paris very largely. If a person be murdered, a picture of the corpse is made at once, and copies scattered in every direction, together with any picture that may be found of the murderer if possible, or often those who are suspected of the crime. In this way very many important arrests have been made.

Mr. R. Tuck, of London, has applied for a patent for a means of pressing and securing the perfect adhesion of photographs to the surface upon which they are to be mounted, in the form of a frame of metal or wood, provided with a roller of wood, india-rubber, gutta-percha, or any material suitable. Such a means has been patented and used in this country for a number of years.

Mr. A. L. Henderson states that one of the best developers extant is as follows:

Protosulphate of Iron, . . . 2 drachms.
Common Alum, . . . . 4 ''
Acetic Acid, . . . . . 2 ''
Gum Camphor, broken up in small pieces in a bottle of water, . . . . 6 ounces.

If the bath be stronger or weaker than 30 grains, the alum must be increased or decreased in the same ratio.

A Novel Method of Cleaning Glass.

—Mr. E. Boivin, the accomplished experimentalist, describes a newly discovered process of cleaning plates, which seems to be very efficacious and very speedy. Mr. Boivin only records a single experiment, and may be so fully satisfied as never to

make another. His method is as follows: Prepare the plate in the usual way by any of the emulsion processes, and attempt to dry the same by means of a spirit-lamp; almost instantly, by some electrical force or power which the deponent saith not, the film very rapidly and suddenly leaves the plate with a loud explosion and great luminosity!!

More Electricity.—MM. Denayrouse et Jablochkow, as we have already announced, have been experimenting with a novel system of electrical light. They announce further experiments which warrant them in saying that as their light element may be distributed and delivered the same as gas and water, the probability is that it will render important-service to photography. If the hopes of these sanguine and enthusiastic experimentalists should be consummated, there will be no further need of the sun, and we can dispense with that now useful article, the blue light included.

We need not use any posing chairs, or head-rests, or posing machines, neither need the photographer take any pains as to his positions, for the well-known action of electricity should convince us that not only will that mysterious element produce for us the source of light which we need for the impressing of the image upon the sensitized plate, but it will also no doubt be harnessed and managed so as to make all our positions for us. Should the subject be stiff and ungainly, and without sympathy with the poser, the mere turning of a stopcock, to allow the more generous flow of the mysterious element, will cause the sitter to contort and twist and splurge in a manner equal to the positions of a Sarony or a Mora-more (a) non.

SUICIDE OF A PHOTOGRAPHER.—We regret to learn that Mr. John Mitchell, of New Castle, Pa, committed suicide on Friday, May 11th, while suffering from an aberration of mind, by cutting his throat with a penknife. Mr. Mitchell was an esteemed citizen, and a photographer of nearly twenty-six years' standing in New Castle.

Wr have received the fifth edition of Dr. Liesegang's work on the carbon process, which is a handsomely printed book, and

will no doubt be useful to those who can read it, and understand the process which it describes. Published by Dr. Paul Liesegang, Dusseldorf, Germany.

"THERE'S A TEMPEST BREWING IN THE AIR."—From the carbon(h)ites the distant

mutterings are heard, and when the glorious sun shall have reached his summer solstice, an avalanche will break from the charcoal summits that will make it dangerous even for those who still have their trusty Alpenstocks. Stand from under.

## Editor's Table.

A WORTHY HONOR.—Professor S. W. Robinson has received an award and medal from the United States Centennial Commission for his admirable trimmer "for its utility and fitness"—short but emphatic and true. Try one.

PICTURES RECEIVED.—From Mr. J. Pitcher Spooner, Stockton, California, some beautiful examples of stereoscopic work, including a view of his exhibit at the Stockton Fair; another of his view-gallery or wagon, which seems to be very complete; and others of scenery about Stockton, which have the charm of some old English photographs.

From Mr. W. H. Cook, operator for B. S. Williams, Tunkhannock, Pa., some examples of card work, which are very creditable.

From Torrance & King, Brooklyn, N. Y., some beautiful vignette cards, which are excellent as well as beautiful. And from Gifford, Forrestdale, New York, some specimens of Rembrandt style, and others, which are very good, including one of B. F. Taylor, the poet-lecturer.

A New Enamel for Glace Pictures.—Our inventive friend, Mr. L. G. Bigelow, has sent us some samples of his elegant work enamelled with his new patentamber enamel, which he claims will supersede anything else in the market for that purpose, owing to its hardness of surface, which renders it impregnable to scratches and rubs.

Mr. Bigelow sets forth the further claim of his enamel in his advertisement. Coming from such a source we have no doubt that all he claims is true.

"BULLDOZING."—Our readers have all heard of the bulldozers in the South; fortunate are they if they have never come under their benign influence; still they may have the curiosity to see what a real genuine bulldozer is like, and thanks to Mr. Landy, the ingenious photographer of Cincinnati, they are enabled to do so by means of his latest sensation in the way of a photograph. The picture before us represents

one of Landy's laughing babies with its fingers in the wool of a negro baby, the latter picturing in his colored countenance the quintessence of grief, screeches, tears, and helples ness. This is decidedly the best thing Mr. Landy has given to the public in this line. No French painter of historical subjects could wish for more expression and contrast than is here depicted.

CORRECTION —On page 37 of Mosaics, 1877, in Mr. Reuver's article, the article of "soda potassium" is spoken of. It should read "iodide of potassium," being a misprint.

SATISFACTORY. — Mr. George M. Betts, of Pottsville, Pa., says, May 3d: "If it is any satisfaction to know that I feel the *Photographer* is improving very much you are welcome to it." Such words as these are very satisfactory and encouraging.

"BUZINE." — We have another ingredient which we think we are justified in recommending, called "French's Buzine," the invention of Mr. Frank French, of Pecatonica, Ill. It is a species of varnish of an unctuous nature, which is applied to the negative with a piece of canton flannel moistened with the preparation, followed by a brisk rubbing with the handkerchief or chamois skin until the surface is smooth. It removes old retouching, and gives a grand surface for a new. For further particulars refer to the advertisement. We have personally tested the preparation, and like it.

LOOKOUT!—We have been asked by several as to the standing of the "Crescent Portrait Company" of Philadelphia. One of our correspondents paid a visit to the headquarters of this company, and found nothing there to satisfy him that they had anything to dispose of which was worthy of the confidence of the fraternity.

ITEMS OF NEWS.—Mr. G. D. Morse, of San Francisco, is creating a sensation by his new

Boudoir picture, which seems to be very much admired and liked by his patrons.

Mr. W. W. WASHBURNE has opened a new and beautiful gallery in New Orleans, determined to make the best photographic pictures in the South. We wish him success.

MR. GEORGE B. RIEMAN, Secretary of President W. H. Rulofson, has our thanks for sending us a copy of the proceedings of the meeting of the San Francisco photographers. Their meeting was made very interesting recently by discussions and exhibits of various processes, and the promise for interesting meetings hereafter is good.

ARE YOU INSURED? — Photographers, as noticed in our article recently on insurance, are not as liable as some other parties to be burnt out, yet we deem it very expedient they should use all protection possible, and are therefore justified in bringing to their attention a new fire annihilator, by the North American Fire Annihilator Company, and the invention of Mr. J. Elliott Condit, manager of the company, No. 233 South Sixth Street, Philadelphia.

We have seen this apparatus in practical operation, and in less than a minute have seen a tank of coal oil roaring with fire, extinguished. Would it not be well for all photographers to have one of these pieces of apparatus in their building.

Notice to Our Best Photographers.—
There are but a few issues of our magazine for this year for which we have not pictures in preparation. Those desiring to supply these vacancies must speak quickly lest they be taken up by the more enterprising. It does no good photographer any harm to be enabled to take a copy of our magazine and show it to his patrons, with one of his pictures embellishing it, and we hope the applications for the rest of this year will soon be made. Please study up the matter, and let us have something from you that will be creditable all around.

MR. J. C. BROWNE, President of the Photographic Society of Philadelphia, has been spending about two weeks amid the mountains and waterfalls of Northeastern Pennsylvania, and writes us that he has had a most interesting time working with emulsion and dry processes. We hope he will give us a report of his experiments on his return.

At the meeting of the German Photographic Society on the 17th of May, at an extra session, Dr. Adolph Ott delivered an interesting address on chromium compounds, with special reference to the carbon or pigment process, and Mr. E. Kreuger gave a practical demonstration of the carbon process. The report of the meeting came too late for our number, but we shall be glad to give it later.

Our esteemed correspondent, Dr. Adolph Ott, returns to Europe on the 23d instant, to be connected with the house of Adolph Braun & Co., the distinguished carbon printers of Dornach, Alsace. The Doctor promises to send us some interesting communications from the Old World from time to time, and we shall always be glad to hear from him.

Our old contemporary. Mr. Charles W. Stevens, with bis right-hand man, or left hand. Mr. G. A. Douglass, has removed his photographers' supplies depot from 158 State Street to Nos. 229 and 231 State Street, Chicago. He writes us that he considers their new quarters the finest in the country, and they are now fairly located and ready to receive their patrons in any quantity. We wish this twain all the success which their enterprise and persistence deserve.

In our April number we called attention to a new lens about to be brought into the market from the celebrated factory of Voigtlander & Sons, through their agents, Benjamin French & Co., Boston. We are glad to say that a stock of the lenses has now arrived in full time for the landscape season, and that the advertisement of them, to which particular attention is invited, appears in this number.

PICTURES RECEIVED.—From Mr. Latour, Sedalia, Mo., a number of fine cabinets, which show taste and skill in the technical departments of the work. We notice a mechanical fault. viz., the vignette heads are too low on the mounts. Cabinets from Mr. Well G. Singhi, Binghamton, N. Y.; full-length portraits with rustic scenery. Cabinets and cards from Mr. L. W. Clark, Streator, Ill. Some of these show very good effects, but more care should be observed to produce the tones alike. This is due to the quality of the negative as well as the toning. Cards also from Messrs. R. W. Blair, Dawson, Neb., and Kimball, Augusta, Maine.

FLORIDA.—Mr. Alonzo G. Grant, Jacksonville, has issued a catalogue of his Florida views, which may possess much interest for those familiar with that land of flowers, as well as for those who may contemplate visiting it. The catalogue comprises nearly one thousand subjects.



We have striven during the first half of 1877 to make our Magazine better than ever before. Our patrons tell us that we have succeeded. We shall now try harder still. Our first aim is to benefit our subscribers. We have always conscientiously taken sides against everything we believed injurious to their interests, and beaten it down when we could. Shall such a course be continued and continue to be supported? We have refused large sums for a contrary course, or even for our neutrality, and even now are battling against certain foreign secret processes which the holders desire to introduce here by our co-operation. Give us your support, substantially, and we will help largely to support and defend you. If it does not pay you, we do not ask you to take our Magazine.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us new ones, the following

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FOR CENERAL PHOTO. PRACTICE.
Dr. Vogel's "Handbook of the Practice and Art of Photography" is the best text-book in the world. Written by an old professor who teaches photography, it gives just what is wanted in the fullest and most satisfactory manner. Price, \$3.50.

#### FOR THE PRINTER.

"The Practical Printer," by C. W. Hearn, is a most handy and reliable book. It goes into all the operations of plain and fancy printing in silver, and is full of good. Price, \$2.50.

#### FOR CARBON PRINTING.

For those who want to try this interesting process, the "American Carbon Manual" gives the most detailed information. Price, \$2.00.

#### FOR THE DARK-ROOM.

Dr. Vogel's "Photographer's Pocket Reference Book" meets a want filled by no other book. Full of formula—short, practical, and plain. Price, \$1.50.

#### FOR THE FERROTYPER.

The "Ferrotyper's Guide" is the only standard work. Cheap and complete. 75 cents

#### FOR THE LANDSCAPE PHOTOCRAPHER.

"Linn's Lookout Landscape Photography." Price, 75 cents.

#### FOR THE LANTERN EXHIBITOR.

"Wilson's Lantern Journeys" gives incidents and facts in entertaining style about 800 places and things, including 200 of the Centennial Exhibition. Price, \$2.00.

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"Bigelow's Artistic Photography." Beats his "Album of Lighting and Posing." Superb! With twelve photographs and instructions. Price, \$5.00.

ALL SHOULD STUDY

"Burnet's Hints on Composition." A splendid work, largely illustrated, giving all the principles and rules of artistic posing. Price, \$3.50.

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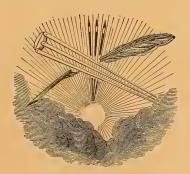
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### DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

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# SKYLIGHTS AND SIDELIGHTS.

BY R. J. CHUTE.

THE light is the most important feature of a photographic gallery, and yet it is the one in which the most mistakes are made in construction. Too often, however, the photographer is the victim of circumstances, in that he is obliged to conform to some condition of the building, such as its situation, its surroundings, etc., which he knows to be unfavorable for his light, and which will put a severe tax upon his skill to insure success. Then again there are others who go to work with everything in their own hands, and construct the worst kind of a light that human ingenuity can devise.

But photographers are coming to a better understanding in regard to lights, and many inquiries during the past spring show them ready to accept what has been proven to be the best.

A photographer is sometimes deterred from locating in business because he cannot find a light or locality to suit him. This is well; it is better to be cautious than reckless, and yet there is not much risk if one has the ability to adapt himself to circumstances. In lieu of a skylight a high sidelight may be used till a good skylight can be secured or built.

Having had some recent experience in fitting and working a high sidelight, I was

much pleased with the results secured by it. It was about twelve feet square, and situated due north. I ran a blue, opaque curtain across the bottom so that the top of it was about four and a half feet from the floor. Above this were two breadths of white muslin curtains, running on wires so as to be readily adjusted to the requirements of the light or sitter. On the shadow side I placed a screen of a light neutral tint, which being moved near or far from the subject produced the desired effect. In addition I run a white curtain on a wire across this side screen, at about the height of the sitter's head, for the purpose of lighting up dark or tanned faces. This light for single heads I found to work remarkably well, producing negatives as well lighted and of as fine modelling as could be produced under most of the combination lights.

But, remember, I do not advocate such a light for all work, or advise any one to adopt it for a permanency; but photographers are often out of business, or looking for locations, and as sidelights are more readily found and fitted than skylights, it would often be better to locate temporarily with the former, till a suitable light could be found or built, than do nothing.

The combination, or top and sidelight, is the best adapted for all work, and no photographer should think of locating permanently without the very best light he can secure. The most common error in skylights is the height. In many cases this is from choice, as high lights have their advocates, who sustain them from theory rather than from practice; in many others it is from necessity arising from the construction of the building, which cannot be altered. But a photographer had better reject a location altogether than accept it with an unfavorable light, for success depends upon that more than upon any other part of the gallery.

The loss of light, which is the principal objection to a high skylight, may be compensated for by making the light proportionately larger. As for instance, suppose a light sixteen feet square and eight feet high above the head of the sitter; the latter would receive the same amount of light above an angle of forty-five degrees as under a light twenty-four, feet square and twelve feet high; but place the sixteen feet light at the height of twelve feet, and there will be a loss of fifty per cent in the amount of light admitted to the sitter.

Thus it is clearly to be seen, as all practice proves, that a high light will work slow compared with a low light of the same size.

But as there are many high lights in use, the successful working of them depends much upon the arrangement of screens and the methods of operating.

I have recently had occasion to work under one of these high lights and a little talk about it may not be without interest. It is a combination top and side light, but the latter is so obstructed by a building opposite that it is mostly a top light. The lowest part of the top light is fifteen feet from the floor and the highest more than twenty. To make this manageable I placed a series of curtains of drab cambric just high enough to clear the backgrounds. They are hung on wires running across the room, and are low enough to be easily manipulated with a short rod, thereby dispensing with all cords and pulleys.

On the sidelight a curtain of the same drab material covers about four feet of the lower portion of the light, and above that are two breadths of curtains which extend high enough to meet the curtains on the top. Just above the top curtains I arranged sev-

eral frames covered with white tissue-paper. These are for use when the sun shines, and may be slid away from under the light when not wanted.

With this arrangement fine effects may be secured, though it is difficult to get quick sittings, even by opening the full light. It is only one more argument against high lights, and I trust that photographers who may contemplate reconstructing or building a light, may learn the lesson beforehand, and not when it is too late regret that they built their lights so high.

## WASHED EMULSION.

BY JOHN C. BROWNE.

About a year ago, I made a photographic trip through Pike County, Pennsylvania, and on my return prepared an account of the expedition, which appeared in the pages of this journal. Upon that occasion I used wet plates only, but the labor of transporting my outfit was so severe that I determined not to use a wet apparatus again in such a rough locality, if it was possible to depend upon any dry process.

During the past winter my attention was called to a sample of washed emulsion, prepared by Mr. Lewis P. Young, of Philadelphia, which gave good results in quick exposures, but a longer time was sure to spoil the negative by solarization, unless the plate was backed. This fault was so annoying that I had almost given up the idea of my contemplated Pike County trip this year, when Mr. Young handed me a sample of stained washed emulsion which he modestly said would not trouble me with solarization even in very long exposures. I tried the article, and the result far exceeded my expectations. In a few weeks I became quite expert in the development, and made arrangements to test its capabilities upon ravine views.

After some delay, Mr. Young agreed to accompany me, and we started for the Delaware Water Gap, where we joined Mr. Graves, who carried a complete wet outfit. For two weeks we rambled over a portion of Pike and Monroe Counties, going to many localities not visited before and to all the best known objects of interest.

The relief from the labor of carrying the heavy load necessary for wet work was an agreeable experience. We had no difficulty in going anywhere unassisted, and enjoyed the trip from beginning to end, having a large number of good negatives to show as the result. My own judgment might be considered at fault if I were to express myself as I feel in regard to the quality of the negatives, but I will say that some of the most critical judges have examined the work and pronounced it excellent.

The time of exposure varied from a few seconds on bright subjects to considerably over an hour on dark ravines. The development was under perfect control, and proceeded almost as rapidly as a wet plate. No solarization or fogging was noticed. I have been asked if the result with stained emulsion compared favorably with the wet collodion process, and I have answered that amost all of the negatives made in Pike County are near in quality to wet plates, and a few superior, owing to the great latitude in exposure.

For the future, in making extended excursions with the camera, I shall discard my wet traps and substitute a dry outfit. Mr. Young has cause to feel well satisfied with his success upon this occasion, and in the opinion of the writer richly deserves the thanks of photographers for placing in their hands such a valuable article.\*

I had intended writing a more extended account of this journey, but as Mr. Young is preparing a paper on the subject to be read at a future meeting of the Photographic Society of Philadelphia, I will not go over subjects that he is far more qualified to discuss than myself.

# Effect of Acids and Alkalies on Glass.

Mr. Editor: T. B. P. asks, in your May number, "Do strong alkalies or acids have a deleterious effect upon glass?"

In a general way we may answer that no walkali has any effect on well-made glass,

and no acid, except hydrofluoric acid, which is consequently the only one which can be used for etching purposes. In our chemical laboratories all acids and alkalies are kept in glass bottles, except the hydrofluoric acid, which requires vessels of lead or gutta-percha. But, if glass be made in an imperfect manner, either from too great haste in melting, or from an excess of alkali in its composition, the action of the atmosphere alone, in connection with the affinity of alkalies for moisture, causes an efflorescence of the uncombined soda or potash, sometimes furrowing the surface in an infinitesimal manner, creating an iridescence, and sometimes disintegrating it in such a way as to produce all the appearance of ground glass.

The natural surface of any glass is undoubtedly its strongest portion, and when that is removed, by grinding on the wheel or by hydrofluoric acid, the strength is materially diminished. Now, if the surface of an inferior glass is disturbed in any degree by the action of the atmosphere, as above indicated, or by contact with alkalies or acids, as suggested by your correspondent, just in that degree will it be weakened in strength. I suppose that most of the sheet glass sold for negatives is strong and well made, and not seriously affected by the removal of the films and subsequent cleaning. Of course, there are some exceptions, as it is difficult to achieve perfection in any manufacture, and it would seem that your correspondent has found by experience that his old negative glasses break more easily than new ones that have never been used, and therefore may not be of the best kind.

It may be interesting to remind your readers that cases have occurred where the removal of collodion or gelatin films has carried away also a thin film of the surface of the glass itself. This, of course, would destroy or seriously deteriorate its strength and value. (See Philadelphia Photographer, November, 1868)

It would be quite interesting to hear of the experience of other photographers on the point of the strength of negative glasses after being in use several years. It is possible that a multiplication of experiments, and a scientific examination of the subject, may

<sup>\*</sup> Mr. Young's "Philadelphia Washed Emulsion" is to be had of Mr. T. H. McCollin, sole agent, No. 624 Arch Street, Philadelphia. (See Advertisement.—Ep.)

prove that a long exposure to sunlight may not only change the color of our glasses, but involve such a physical change in the molecular structure of the glass as to materially weaken its strength. It may be such a change as this, rather than the use of acids and alkalies, which weakened the glass of your correspondent after long usage and exposure to sunlight in making his negatives.

This idea, however, is only a momentary thought of the writer, which is not to our knowledge suggested in any treatise on glass, and may not, after careful examination, be found to be sustained by any facts or reasonable theories.

THOMAS GAFFIELD.

Boston, June 18th, 1877.

## PHOTOGRAPHIC DUTIES.

BY E. K. HOUGH.

No. IV.

MINISTRY OF ART.

(Continued.)

WHAT Christian ministers are to the moral and religious development of the community where they reside, photographic artists should be in matters of artistic taste and knowledge to the community from which they derive support. And the people so recognize, and refer to them for opinions on artistic subjects in a way that often compels them to blush for their own ignorance and deficiency, while the people feel a vague sense of disappointment at not receiving correct information from this proper source. And the people are right. There is now more money paid yearly for photography in all its forms than for all the paintings and statues yearly produced, although some of these bring thousands and tens of thousands of dollars each. It is "many a little" that makes the "mickle," and for all this grand aggregate of sustenance the world has a right to some more adequate return than the mere mechanical execution of individual orders.

The Christian minister who knows nothing of theology beyond the narrow bounds of his own sect or creed, will not be as much respected even by those who engage his services, and listen to his teachings, as one who is well informed regarding the tenets of other religions. So the artist who knows nothing of other forms of art will not be as much esteemed as one who knows something of all forms of art, with their distinguishing differences, their possibilities, and limitations. Therefore to "study for artistic culture" is an imperative obligation upon every one who derives his support from artistic sources, and that, too, for nobler purposes than the mere increase of revenue it will bring, for the greater power of doing good thereby acquired.

Workers in every form of art should honor the art that sustains them, as ministers of religion not only feel their duty to the church and neighborhood from which they derive their immediate support, but an ever present and superior obligation to the religion for whose advancement they labor.

Photography is not "high art," as Christian ministers are not "high priests," but as Christian ministers are brought into more intimate and familiar communion than the priests of old with the people of their charge, for the express purpose of thereby doing them the greater good, so the photographic art, by its broadly diffused and intimate relations with the common people, does the greater aggregate of good than the higher forms of art limited to their narrower bounds of influence.

Therefore photographers, to be worthy of the cause they serve, should be ministers of art in every village.

Their studios should be artistic centres from which artistic influence radiates. They should be artistic authority to which deference is paid. They should be constant examples of good taste and artistic insight. They should be like books of ready reference on all questions of artistic opinion, ready and able to give somewhat of artistic reasons in the whys and wherefores of all forms of art, and especially that form of which they are exponents and by which they are sustained.

They should be themselves judges of what is and what is not correct and legitimate art, and should constantly endeavor to so teach the people, never lending aid to foist upon the public, for temporary profit, bizarre and outré styles, which are sure to be discarded when the first impulse of novelty has worn off; should no more permit themselves to teach and execute false art because it is profitable, than a minister should teach false doctrine because it increases his revenues

Of course both minister and artist may be misled, and may mislead others, through their own imperfect taste and knowledge, but in both cases a constant endeavor to honestly ascertain the right way, and follow it, will soon bring them back from temporary errors to the right track, and both can be absolved. In each case it is only he who deliberately violates his convictions of right for greater gain who is guilty, and in both cases the guilt is to be equally condemned.

# SCATTERED THOUGHTS.

BY F. M. SPENCER.

FOURTH PAPER.

My chief object in this series of papers is to benefit the country photographers, with whom I am by interest most in sympathy; but if it chance that any city readers of the Philadelphia Photographer find anything in them of profit to them, I shall be the more glad for the feeble service I may render. My observation leads me to think that most country photographers are making their negatives on too small-sized glass for the size of the picture made, at really greater cost, or poorer success, than they would experience if they would study more the economy of labor, less the cost of glass. It is well known that one-fourth glass is too small to get good even effects for cartes de visite. With the utmost care the collodion will be too thick on the side and end where the collodion is drained off, and the difficulty of flowing so that the draw lines of the film do not reach inward from the opposite side and end of the plate far enough to spoil or much injure the portion of the plate forming the picture surface. It is very difficult to get a smooth background on a quarter plate, consequently it is rejected by the customer, though the figure itself be passably good; and, quite frequently,

without being able to say why, he knows he is not pleased, but don't know enough about the principles of art to see that it is the want of harmony between the figure and background, and relies upon the general impression it conveys to him, and says: "Somehow it don't look right to me." Now, the upshot of the matter is, resittings until both the customer and photographer are out of patience and out of pocket, for both suffer by the transaction. Again, the resulting picture is not only better for being farther from the edges of the plate, but when, as ought to be the case always, all that portion of the margin of the plate is shielded from the light except just enough at the centre to bear the image, and sufficient background for the size of picture desired, the plate is richer in free nitrate of silver to help form the image, so that the effect is most decidedly better and time of exposure somewhat shortened. For single negatives, card size, I would recommend 44 x 62 plates to those who have not, and cannot afford, a camera box with some kind of sliding holders. There are several good boxes of this nature, but I prefer and would recommend the American Optical Company's "Imperial" box, 8 x 10 or 10 x 12 size. I have one of the latter size, double swing, and am desperately in love with it. One with a single swing would answer almost all purposes in small galleries, yet I find the double swing a handy thing to have about. With such a box for cards, two exposures for card size on 61 x 41 plates is much better than single quarters, and 5 x 8 plates still better, and 4-4 plates decidedly best. Cabinet pictures to be printed vignette or medallion can be made two on a 4-4, or better all cabinets on 8 x 10 plates. Any live photographer making quarter negatives for cards can well afford to buy such a box, make double exposures, and use 4-4 plates, and pay for it by an extra price of \$1 per dozen for cards, meanwhile getting compound interest in the pleasure it will give him. And if any customer seems inclined to refuse to give it, make him two on a  $4\frac{1}{4} \times 6\frac{1}{2}$ at the old price; put extra effort on the extra priced negatives and mount on finer cards. And all the extra cost will be more than made up in the extra pay, and no

grumbling either. It will improve you, your pocket, and public *taste* all at once; try it and see.

To print in a plain background where the original is faulty, it is a good way to take a piece of the sensitive paper, as large as the negative, and paste it to the negative along the top edge and expose until all the outlines are out, then take the negative out of the frame and turn the paper back on a piece of plain glass, and with a sharppointed knife cut out the figure, being careful to exactly follow the outlines of the face, hands, and white collars; but if the color be dark just a bit on the hair and drapery, the mask will now replace itself exactly on the negative, unless the bottom of the mask be parted by cutting entirely down, which is seldom or never necessary if the paper be a little longer than the negative. Replace the negative in the frame and make your print; it will be on a white ground. Take the figure that was cut out and stick its face to a sheet of glass larger than the print, so that it will allow the margin of the glass to extend beyond the print when placed in contact with it. Now take another sheet of glass, the same size, and lay a pad upon it, lay the print upon the pad and then the glass having the figure fastened to it, over the figure of the print so that it will exactly cover the figure of the print; hold in contact with the fingers, and expose to the light, moving the upper glass a little all the time to prevent printing a sharp line, and stop when the desired tone is reached; and by the use of a bit of cardboard, cloth, or dark paper, or by standing where the sun casts a sharp-lined shadow, the ground may be graduated in tone in any desired direction. By this method I have printed, or grouped two figures taken separately, or copied from unequal sized pictures, and put in the background so that no one not well up in double printing would have guessed the fraud on circumstances.

The background of pictures copied large from photographs may be much softened by pencilling a mask for the head or figure and using it as a mask for the figure of the print, and re-exposing the background to the light in the same manner as above. Don't make the retoucher do what the printer can do better, and give the printer a little credit for brains, and a little encouragement. It pays.

### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 169.)

THE theme relative to the washing of photographic prints with the view of securing to them the greatest attainable degree of permanency, has been a mooted one among all of our practitioners. Very many of those who have had the means and the opportunity of introducing and using certain original devices, have discarded all other methods than their own. I have read all sorts of articles, the writers of which have severally advocated, for the full elimination from the paper of the supposed injurious chemicals, periods of time varying from ten minutes to twenty-four hours Immersion, drenching, sprinkling, and squeezing have all been resorted to, and since photography has been practiced over a quarter of a century, we should surely know by this time some little about the durability of a silver print.

I have almost accepted the belief that ruinous fading of photographs is exceptional rather than otherwise, always provided that they are published from some house where a reasonable amount of care and intelligence is used in their production.

Hyposulphite of soda is doubtlessly a most insidious chemical, and from the property it seems to possess of retaining destructive qualities, no matter to what extent it may be diluted, reminds us of the seemingly interminable ductility of gold.

Practical experience has proven to me that pictures washed separately and with care, under changing water, have shown themselves, after the lapse of years, to be far more permanent in character than those subjected to many hours of senseless soaking.

The point to be attained, then, seems to hinge upon the necessity of the constant manipulation of the paper, and its exposure to currents of pure water. Machinery can be made to answer the purpose, but it is

doubtful if manual labor in this, as in many more mechanical pursuits, is not greatly to be preferred.

The very large amount of work issued by the Centennial Photographic Company, made it imperatively necessary that the most rapid plan should be adopted that would at the same time assure a perfect result. There were young men attached to the place whose duty it was to attend to this department only, and if they were at all conscientious in the performance of it, the photographs must have been more than usually well cared for. From the soda dishes the prints were removed to be placed in others containing a moderately strong solution of salt and water. They were allowed to remain in this a few moments. The efficacy of salt in preventing the dreaded and much talked-of blisters was pretty thoroughly proven. I do not know that any inconvenience was occasioned by their appearance. I refer, of course, to the small pimply varieties that you have all seen. Those big swollen-up fellows which occasionally puff themselves into existence, that remind one so forcibly of the action of cantharides upon the human skin, I believe to be incurable, though, fortunately, seldom occurring evils. They doubtlessly are originated by faults in the paper itself, and depend upon the want of adherence of the albumen. A print showing them had better be discarded at once, for it will only be a source of vexation, no matter how carefully you endeavor to doctor it.

Along the wall there was a line of tanks, plentifully supplied with running water. From the salting bath the pictures were dumped into the nearest of these, and after some washing and changing, gradually came into the hands of the attendants who did the "squeezing."

Batches of a dozen or more were carefully placed between the folds of a pure rubber cloth and pressed, first one way and then another, by means of india rubber rollers mounted in a convenient handle. This, of course, was claimed to be the important part of the work, and after its accomplishment little after-washing was deemed necessary.

It was found that by giving constant care

to the matter, all traces of soda could be removed in half an hour.

Although there is a rolling arrangement sold specially for the purpose, impromptu devices can easily be made. A housekeeper's dough-pin would answer admirably, if well covered, and even broomsticks might be made to do duty.

Should you desire to test for any lingering traces of "hypo," I know of no more simple method than was suggested by an English photographer years ago. He claimed that he could detect the presence of one part of soda in one hundred thousand parts of water. His biography not being accessible, or maybe not even published, I cannot tell you if he were a "homeopathist." The instruction is simply to draw off into a narrow, tall bottle, or graduate measure, a half-pint or more of the final wash-waters of the prints. Allow the liquid to become perfectly still, and then let fall into it a single drop of a strong solution of nitrate of silver. The latter will fall to the bottom, causing an opalescent cloud, which, if free from hyposulphite of soda, will remain perfectly white, while, if the slightest trace of the hypo is present, it will speedily assume a darkened tint, the depth of color depending upon the amount present in the water under examination. A little practice soon accustoms the eye to these delicate changes of hue.

A much more elaborate recipe, and one the accuracy of which can be entirely depended upon, is that which was introduced by Dr. H. Vogel, in his Handbook of Photography, and known as the iodide of starch treatment. As it has been republished in Hearn's Practical Printer, and as it is to be supposed that every photographer is supplied with either one or both of those works, it is unnecessary to recapitulate the details here.

There are many hundreds of men in our business who cannot afford the time required for the constant handling of pictures whilst washing, and who do not have competent assistants whom they can depend upon for the proper performance of their duty. In such cases, it is better to have a tank that will mechanically do its work as perfectly as possible.

The description below gives an idea of an apparatus that I have had introduced into several leading establishments, and that is at present used by myself. I know of nothing better. Modifications of it have been published from time to time in the *Philadel-phia Photographer*.

The size of the apparatus must depend altogether upon the amount and character of the printing that is done. It is a circular tank, made of galvanized iron.

The upright portion of the sides is not made perpendicular, but inclines inwards towards the top. The object is to aid in preventing the pictures from adhering to the vessel.

The real bottom of the contrivance is a conical or funnel-shaped affair; and perforated with holes is a false bottom, easily removable for cleansing purposes, by reason of its being constructed in adjustable sections.

From the main supply-pipe there are two branches. The one constitutes a showerbath that can be used at discretion. The other runs around the entire circumference of the tank near to the false bottom. Its entire length is punctured with holes, and the little streamlets force themselves up instead of down upon the moving pictures.

There is a siphon that can be allowed to act at discretion. By its use the prints can be drained almost dry every fifteen minutes. Then there is the usual waste-pipe and an overflow.

Should the siphon be kept in operation, the stopcock should be closed. Otherwise, if the siphon should not be used, then the stopcock should be turned so that somewhat less water escapes through the overflow than is supplied. The overflow will provide against any danger of an accidental flooding of your room. The advantage of the cone-shaped bottom is that all of the water contaminated with dirt, hypo, etc., will naturally sink below the level of the prints.

I can conceive of nothing more admirably suited to the purpose. Where there is a plentiful supply of water (few galleries lack it), the photographs should be as thoroughly cleansed as it is possible to make them.

Even the drying off of the prints has exercised discussions, and there are now advocates of more than one method.

Those who use Slee's prepared mounts need not be much troubled about the matter, because the prints (provided they have been trimmed) can be taken directly from the water and pressed to the cards.

The cutting of a print after it is removed from the pressure-frame, and before it is toned, cannot, I think, be too strongly advocated. There is every reason in favor of the plan, and none against it that I know of, except an occasional plea of want of time.

I was myself much prejudiced against so flagrant an innovation upon time-honored customs until observation and an experience as to the economy of the measure, made me realize its advisability.

The clippings from the edges of prints, no matter how inconsiderable they may be when singly considered, become really valuable when weighed by the pound. The pennies that are inconsiderately thrown away would be the making of dollars if gathered together.

No smaller an item is the economy of gold in the toning process, and contrary to the preconceived ideas of the uninitiated, there remains the lessened liability of damage to or the tearing of the print during its manipulation. The clear cut edge is a great protection to it.

Otherwise, if it is desirable to dry off your pictures before mounting them, it is necessary either to hang them up, to lay them upon covered stretchers, or to place them between heavy blotters or cloths.

The last plan was the one most generally adapted by the "Company." It had the advantage of preserving the pictures well straightened out, and thus rendered more adaptable to the Robinson "trimmer" or Bergner cutter. Care must be taken that the blotting-papers or cloths are kept scrupulously clean, and an occasional test might be used for the discovery of any trace of soda contained in the former, and the latter should be washed frequently. It is often averred that the blotting pads as they are received from the papermakers or stationers are already contaminated by soda used in

their manufacture. Frequent experiment has, in my own case, failed to detect its presence.

Even in this apparently minor part of the business more care should be used than an untrained lad generally feels incumbent upon him. The dropping of a print upon the floor, or the use of a dirty clothes-clip, or a soiled paper, will most undoubtedly be ruinous to the photograph. In short, an artist's anxiety about the welfare of his productions is never at an end. No; not even when they are lost to his sight and become the property of his customers.

(To be continued.)

### OUR PICTURE.

WHILE we believe that the best examples of work to set before the photographer for study are such as are made by the best of his own co-workers, still, arguing as we have for many years, that no photographer can become a thoroughly good one without a fair acquaintance with art principles, we have from time to time deemed it our duty to bring before our readers examples of works of art in different directions, such as copies of engravings by the best masters. copies of paintings, etc.; but we have never had so good an opportunity as the late great world's fair gave us to secure for our purpose a picture of a group of statuary such as we have the privilege of issuing with our magazine this month. We trust that at least those who are not so familiar with art principles as some others, will find these examples suggestive to them in making positions.

The display of Italian statuary last year was very largely made up of child subjects. While not entitled to be classed as examples of the highest style of art, yet they were full of expression, natural attitude, and well worthy of study.

A number of them are presented in our picture this month.

We are told that in drawing, lines are the elements of the art; in sculpture surfaces; as, however, surfaces are made up of lines, the ability to execute truly the lines of any curvature must precede the power to mould surfaces into any contour. The principles of drawing must therefore be kept before

the mind in the study of the art of sculpture, while new and distinct applications of those principles, new ends to be attained, and distinct methods of accomplishing those ends are also to be regarded. This is none the less true in the study of the art of Photography, and the principles involved in Photography are very similar to those which relate to the execution of works of sculpture. After the Greeks, the whole class of the arts generally designated under the term of sculpture have been called the plastic arts. The terms employed to designate the different processes, methods, or styles of plastic art have each its specific meaning, some of these methods being compelled by the character of the material employed, others being suggested by some principle of design in the mind. We have in the various classes the following forms: Moulding is the pressing out of forms in some soft pliable material; akin to this is wrought or beaten work, which is the shaping by the hammer of metals into forms more or less finished. Casting is the forming of images from material in a liquid state. Carving, the cutting and rounding out of half forms projecting from the rough surface of material like wood and stone. Graving, which is the slightly cutting of indented figures as opposed to projecting forms and material with a polished surface. The above may be classed as the rougher methods of sculpture.

In the second department we have to classify such works as are determined rather by the idea of the artist than by the character of the material, which are designated by a class of words chiefly derived from the Italian, applicable to his work when complete, as follows: Intaglio, or figure cutting into the surface of the stone without any rounding out, as in the hieroglyphics of Egypt; basso-relievo, the rounding up of slightly raised figures as in coins and medals; alto-relievo, a high relief, the carving of a figure upon stone or other substance, so that it projects half the diameter of the. face of the natural objects, such as we see on our stoves, vases, etc. Perfect or complete relief is presenting another view of the form of an object as seen by the eye on one side only; and finally the complete statue or

sculpture proper, which is the carving of the entire figure with its projections complete on all sides. While the examples before us come under this latter class, the statuary is presented to us really in the form of complete relief.

Those who are familiar with the subject at all will know that these various classes of sculpture make it possible to use all sorts of material for their production, but the most favored material and the most popular style of sculpture is that known as the complete statue in white marble. Sculpture, even in its reduced form, has, as its main end, to please the taste and to gratify a love of the beautiful. The meaning of the term design, when properly used, restricts to the study of the methods of appeal to the æsthetic sensibility, by forms of grace, and in sculpture this limitation is manifest. The work of the architect must be founded primarily on the idea of utility, but the labor of the sculptor, whether expended upon a statue which cannot be employed for any purpose of utility, or upon an ornamental candelabra which is itself useful, is founded directly on the idea of the beautiful, this being the ideal which the sculptor would realize in his work and the sentiment to which he would appeal in the beholder. It is in sculpture in fact, more than in any other department, that the love of design has shown itself to be a universal principle of human nature. The rudest savage, though he shows no conception of art in architecture or painting, carves his pipe or tomahawk into the image of some object of admiration or devotion, and carves it with devices of his own grotesque taste or superstitious adoration. The schoolboy, who thinks of no other art, is universally a sculptor, cutting his bow or bat into a shape to please his eye, and never happier than in giving form to some bit of wood with his pocketknife. In the olden time, the vases used by the wealthy were given great attention by sculptors, and in producing these a careful observer cannot fail to notice that the lines approach nearly to a perfect copy of those which make the human form so matchless as a work of art. Upon this point Wincklemann has the following: "The forms of a beautiful body are determined by

lines, the centre of which is continually changing, and which if continued would never describe circles; they are consequently more simple, but also more complex than a circle, which, however large or small it may be, always has the same centre, and either includes others or is included in others. This diversity was sought after by the Greeks in works of all kinds, and their discernment of its beauty led them to introduce the same system in the forms of their utensils and vases, whose ease and elegant outline is derived after the same rule, that is by a line which must be formed by some means to save circles, for all these works have an elliptical figure, and herein consists their beauty; the greater unity there is in the junction of the forms, and in the flowing of one out of another, so much the greater is the beauty of the whole." These thoughts should be very useful to photographers, not only in criticizing the examples before them, but in making up their pictures. Many of the rules which govern the sculptor in producing his beautiful work are the same as those which govern the photographer, though the photographer has an advantage over the sculptor in the fact that his works appear only as complete reliefs, while the work of the sculptor known as statuary must appear, as we have already said, as a complete statue, that is, with the entire figure attended to according to all the principles of the art.

Now as to the rules which govern the sculptor as well as the photographer.

First. Positions as relating to balance. We cannot go into the subject (for our space will not allow) as largely as we would like, but must refer our readers back to our volumes of eight or nine years ago, to our series of articles on Art Principles Applicable to Photography and to our most recently published work of Burnet on Composition. In balancing his figure the sculptor must study the object not only from one point of view, but from every point, above, below, and around; not only in one attitude, but in every conceivable position of its parts, first as to its general position as a whole, then of the relative position of its parts, observing the point of support in each view, of which attitude and the relation of every portion of the object as lying to the left or right of the point of line perpendicular to that of the point of rest.

Second. Perspective as affected by distances and angular elevation. In this respect, as the works of the photographer are mostly to be seen on a level with the eye and near at hand, he is not obliged to inquire further than to see that his figures are not distorted and that the subject is properly focussed.

Third. In time, as it relates to action and expression. This, too, is a subject which you need not to study so fully as the sculptor, for the reason that our positions are more or less restrained by the head-rests and the accessories, and because of our subjects generally being taken in a state of quietude. A sculptor must scrutinize with care the contractions and swellings of the muscles and the pressing out of the bone joints when men are putting forth their strength in action, and also scan the minuter workings of the face, which give the countenance its varied expression. A great many persons exclaim at the high price asked for a moderate-sized piece of statuary, being little aware of the real labor entailed in its production. First the sculptor must make his drawing in pencil, working up the details of the varied parts, then he must mould his preconceived form into clay, following his drawing; from this a mould is made for the casting or working of the models into plaster. The block of marble is now to be cut down to the exact proportions of the plaster model. For this purpose an upright post of wood is fastened upon a wooden stand, the upright rising somewhat above the height of the model; sliding arms are inserted into this post at distances of one, two, or three inches from each other. These arms are graduated into inches and minute divisions of an inch. A square may be marked on the floor of the studio, sufficiently large to allow perpendiculars touching the extremes of the figure in plaster to fellow within its limits, and another of the same dimensions may be traced, in which the model block is placed. If, now, a gauge be placed on the line of the square in which the model stands, and the sliding arms be pushed toward the model until they touch

its extreme points, and then the arms be clamped so as to be stationary, the gauge may be next placed before the block of marble, and the one where the arms touch be taken away until the gauge can be brought to the line of the square within which the marble block stands. By repeating the process upon one side and another, first the extreme points, as the tips of the fingers, the nose, etc., then the more receding, as the knees, the elbows, etc., may be marked on a chipped block, and thus, in sections, every point of the entire figure, as the stone is cut down, may be brought out to its required proportions. Thus we see that mechanical contrivances are used in the studio of the sculptor as well as art principles.

The genius of the artist at first needed exercise upon an ideal he has conceived, in the giving of form to this ideal, and the drawing made with his pencil, and in the moulding of the clay into the round model. The mere mechanical labor of cutting down the rough stone may be performed by the common workman, since it is purely the handiwork of manual labor, though this work must be hourly presided over by the genius who conceived the ideal, so that the common workman of the sculptor, though scores of them are in his employ, are literally his hands, guided by the one mind, and the finished work therefore is as truly his as that of the painter who must do all his work alone, putting on every single touch of the brush with his own hand.

The history of sculpture dates back to the earliest records of the human race. Those who are interested can study up the history of the matter from the days of Tubal Cain to the present, including the primitive sculpture of Egypt, that of Western Asia, including the Arabian and Hebrew, the Assyrian and the Persian, the classical sculpture embodied in the Grecian, the masterly conceptions of Phidias, illustrated in his Minerva and Jove, the athletic style matured by Ageladas, the graceful style perfected by Praxiteles in his Venus de Medici, or the natural grace of his Apollo Belvidere, and the composite symmetry in his Amazon, the historical, dignified by Lysippus, and the sculptured likenesses of the statues of Alex-

ander, together with the impassioned style introduced by Scopas, culminating in Agasander, such as the Laocoon and Niobe in Florence and Rome, the colossal style under Chares, illustrated in the Colossus of Rhodes, the Roman sculpture linked with the Grecian in the early perfect Etruscan, in the collections captured in Greece, and in the Grecian taste characterizing Roman sculptors; of the transition period from ancient to modern sculpture, illustrated specially in the change of subjects for art introduced by Christianity; of the chaste though rude style of sculpture prevalent in the early stages of Christianity; of the artificial style and illegitimate use of sculpture characterizing the mediæval ages of the Christian Church: of the majestic grandeur to which sculpture arose by the revival of science, of letters, of art, and of religion in the fifteenth century; of the embodiment of Christian sentiment in forms of classical grace characterizing modern sculpture in Southern Europe, and the union of simplicity of design, natural beauty of form, and loveliness of sculpture distinguished in Northern Europe, or of the scope of subject and vigor of conception seen in the early growth of English and American sculpture. But we have not the space for such details. If what we give in our picture or what we have said about it proves to be of value to any of our readers, or even succeeds only in supplying a fresh subject for the membership of the Chicago Photographic Society to debate, we are quite content.

## PHOTOGRAPHIC NEWS.

THE war in the East is causing photography to look up. Not only the Russians and Turks each have their corps of micro-photographers, but every newspaper correspondent is compelled to wear a numbered medal, on the reverse of which is a photograph of the wearer, in order to put the question of identity beyond dispute.

WE desire to record the invention by ourselves of a process of taking photographs of persons by electricity, by which Angelina as she starts out on her afternoon ride may stop at the telegraph office and send to Maria, in a distant city, a photograph of her

new riding habit, herself included; and upon her return, authentic pictures of any lovers which she may have attracted in the Park. We of course have not perfected this invention, but when we find our own words carried abroad, and see our own handwriting counterfeited by the galvanic battery, and the electro plates of a newspaper seized from the cylinders of a great press and quickly transmitted to a distance, we feel that anything is possible, and why should we not look ahead and be the first to publish our great invention?

ENCAUSTIC paste, such as is used by many photographers for polishing their pictures after rolling, is said to be a sure protection against fading.

THERE exists a law of the Mohammedan religion prohibiting a reproduction of copies of the Koran by the use of printing types, thus compelling every person wishing to obtain a copy of that high-toned document to resort to the use of the pen for his purpose, at the cost of much labor. Now, however, the high religious authorities of the aforesaid ancient faith have decided that, although it is wrong for the nimble fingers of any printer's devil to be employed in reproducing such a sanctified historical work as the Koran, yet the dark doings of the photographer may be invoked to provide means of disseminating their sacred writings. This is another feather in the cap of our blessed art; would that its disciples were more religiously inclined, as a compensation to the faith for such unlimited confidence in them. We are at a loss what photographic process to recommend to our Mohammedan brethren for their purpose. If the silver process is used it is only a question of a little time when the whole Mohammedan faith will fade away, and no trace of the Koran even be left upon the face of the earth. If the carbon process be used it is only a question of a little time when the hot climate of Turkey and other Oriental countries will entirely melt away every trace of an image on the "everlasting" sheets. If any photo-lithographic process is adopted to secure the delicate lines of the Koranic alphabet a surfaced paper must be used, and in that case nothing but the

very perspiring fingers of the devout Mohammedan will be required to destroy all trace of religion upon the sheet. We recommend our Mohammedan brethren to stick to the primitive pen and ink. Photography is a blessed thing, but a bad one for them; it was only intended for Christians and photographers.

A SEASONABLE HINT.—The British Journal gives the following excellent method for conferring stability on light camera-stands or tripods, as follows: "A light rod of wood, the thickness of one's little finger, is attached to the camera in such a manner as that it shall project on both sides to the extent of several inches. Two such pieces may be employed, each being secured into, or otherwise attached to the camera, so as to project in the manner described. Instead of wood these projections may be formed of metal wire of the thickness of a small cedar pencil. To the outer edge of each of these straight horns is attached a piece of string which is brought down to the ground, and attached to the foot of the leg of the stand which is on that particular side. We have found that a small hole through each leg, at the distance of about an inch from the end, answered every purpose. When the camera is mounted upon its stand, and the view adjusted and focussed, it is only necessary that the string be passed through the respective holes, near the ends of the legs, and pulled till the latter are firm, and afterwards being pinched or otherwise screwed to retain them in this rigid position.

"The effect of this contrivance is to impart to the camera-stand a degree of rigidity similar to that which could otherwise only be secured by the adoption of a stand having a large triangle. We have tried this method during a brisk gale, and are quite satisfied of the advantage secured by its adoption; and this being so, we can strongly recommend it to those tourists who find it expedient to employ a light camera without having to resort to the use of substantial camera-stands." Query. Would not stout iron screw-eyes be better, and less in the way than the wires or pins alluded to above? So useful have we found these screw-eyes under various circumstances, that some day we propose to devote an article to them. We never start on a tramp or to make a negative outside of the studio, without a lot of various sizes stowed away somewhere among our traps.

A Good Suggestion.—Mr. Sachs, in submitting a communication to the Yorkshire Photographic Society, says: "The subject of light and lighting pictures can never be exhausted, but as a passing remark I would advise all when they see any work of photography worthy of a place in their album as a study, to obtain it if possible, and do their best to produce results as good, or if possible, better. There is no harm done in imitating a good thing, and it will in future elevate our art to the front rank."

AN ENERGETIC DEVELOPER.—Mr. Ernst Boivin, in the *Moniteur*, gives the following formula for developer, which he says really does permit the exposure to be diminished with very excellent effects, as follows:

After the ingredients are mixed together, the liquid is permitted to stand a few hours and is then filtered. This developer will keep good for eight or ten days, but is best for portraiture when newly made. Before the application of the developer to the exposed plate, a few drops of saturate of acetate of lead, made with distilled water, soured with a little acetic acid, are added.

Photographers Distinguished.—For the hopeless wretches who try to draw up their fortunes from the depths of the nitrate bath, or to collect a competence by straining their eyes over the broadside of the ground-glass by the aid of a focusing glass, we have a few words of hope. We learn that the King of Wurtemberg has conferred upon Dr Stein, of Frankfort, the "Knight's Cross" of the first class of the Order of Friedrich, for his recently published work on the uses of light in scientific research. Moreover the Emperor of Austria has presented Herr H. Krappek, of Marburger, with a breastpin of brilliants, as an evi-

dence of his approval of some equestrian portraits taken for him by Herr Krappek. Victor Emmanuel has distinguished in a like manner a Roman photographer, Herr Zinsler, by presenting him with a similar jewel. It may be a good while before our country becomes a monarchy, but if there is something to look forward to, it is always easier to work and to make progress in one's profession, and we hold up this hope to our disconsolate fraternity of America. Every cloud has a silver lining we are told, and every knight of the black art may some day be possessed of brilliants.

THE Rhenish Westphalian Photographic Society possesses a question-box, and at the recent meeting the two questions following were found in the box, and answered as follows:

First. How may rents in the varnish of negatives be removed?

Herr Criefelds had been frequently troubled by wormlike rents in valuable plates, and tried a variety of ways of removing them. With powder he got no good results, nor with rubbing in black with oil of turpentine; indeed, that sometimes loosened the film. He now always uses a little dust from a corner of the studio, rubbed in with a piece of wadding. Of course when the rents are wide they must be filled in by retouching. Herr Brischke used powder scraped off lead-pencils.

Second. When negatives become damp the varnish, and with it the collodion film, rises up and forms inequalities; consequently, when pressure is applied, the puffed-up or inflated parts burst, and the plate is destroyed. Are there any means of saving these plates?

Herr Criefelds recommended that the plate should be laid, varnished side downwards, upon a vessel filled with equal parts of ether and alcohol, when the film would be softened and lie down again flat. The varnish might also be removed by dissolving it at once with alcohol and potash, but that often displaced and injured the collodion film.

AFTER-DARK PHOTOGRAPHY.—Dr. John Nichol writes to the British Journal as fol-

lows: A few days ago I received an invitation to visit the studio of Mr. Truefit, Edinburgh, and on calling was introduced to Mr. Gray, of Hamburgh, who happened to be the friend alluded to by Mr. Thomson, of Aberdeen. Gelatin emulsion is evidently Mr. Gray's hobby, and he rides it with much enthusiasm; but at the same time, I am bound to say, with apparently good reason.

Although I am aware of the articles on the process of Mr. Gray, and of the gelatin processes in general that have so recently appeared in this journal, it may perhaps be desirable that I confine my observations to what I have myself seen.

The plates are prepared by simply pouring on and off the emulsion without warming the glass; and they may be used within two minutes after coating, or a stock sufficient for two or three days' work may be coated at once and used in the ordinary course of business. The development may be carried on as rapidly as by the ordinary solution of iron, although he is of opinion that a better result is got by giving a little longer time, and perfect printing density is obtained without any method of intensification; while fog is absolutely unknown or, as he says impossible, and that, too, although no bromide or other restrainer is employed.

A number of negatives and prints from them lie before me while I write, and they fully bear out all that Mr. Gray claims for them; and if anything were wanted to prove how rapidly the image may be impressed, we have it in the sharply cut features and roguishly expressive eyes of a pretty child, a portrait that would not disgrace either Mr. Ross or Mr. Faulkner.

The modus operandi, as I saw it carried out, was somewhat as follows: The emulsion was contained in a four or six-ounce wide-mouthed bottle, over the mouth of which was tied a piece of fine muslin. I had not seen this dodge before, and thought it a very capital way of filtering. That the flow might not be impeded for want of air a small hole was drilled in the neck of the bottle, and the emulsion flowed quite readily both out to the plate and in again as it was drained from it. The bottle was placed in

a dish of warm water for a few minutes, and then the plate coated in the usual way. When the plate had been allowed to drain for a few seconds, but before it had ceased to drop, it was turned in the opposite way, and the thick edge allowed to run back till the coating was quite uniform, which it readily became, and it was then laid quite level for two minutes, after which it might be set up on edge or stored in a box. The plate so prepared was then placed in the camera, and, having ascertained that an exposure of twenty seconds was required for a wet collodion negative, this plate got only fifteen seconds. On removal to the darkroom the plate was covered with a threegrain solution of pyrogallic acid, which was poured off and on several times. To this was added a few drops of an extremely weak solution of ammonia, and the image, on its application, immediately began to appear, and continued to gain in both detail and density till the development was complete-a process which occupied from one to two minutes. After fixing in hyposulphite of soda and well washing, the negative was immersed for a short time in a solution of bichromate of potassium, and again washed and dried. Mr. Gray uses the latter solution with a view of hardening the film, but probably chrome alum would answer the purpose better. The film is very tough, and without a substratum adhered to the glass so firmly that it bore the full force of the tap with water at a high pressure, and when dry is quite hard enough to stand any amount of ordinary printing without varnish.

ANOTHER NEW TERM IN PHOTOGRA-PHY.—According to current reports "porotypography" is a new process for producing copies of copperplates, woodcuts, etc. It is said to rest upon the property possessed by paper which is porous, and easily allows gases to pass through it, to lose this porosity at certain places which are printed. A gas, which either colors or discolors a certain chemical substance, is passed through the imprinted parts of a copperplate etching, and on reaching the further side of the paper rests upon a second paper saturated with the given reagent. Where the gas found a passage through, the color of the paper is changed, and an impression of the first print is produced.

Four papers are required, namely, one evolving the gas, saturated with bisulphate of soda; one sensitive to the gas, saturated first with extract of gall and then with a solution of ferrous sulphate; then blottingpaper and oil-paper. The printing may be done by laying the papers between the leaves of a book, and then adding a strong pressure. Lay the woodcut upon the sensitive paper, and upon the woodcut the gasevolving paper; and upon that again oilpaper. Press the whole together for ten minutes or so, after which the prints should be ready. Professor Böttger, the inventor, has, however, only got indistinct impressions by this means as yet.

HOW ARE WE TO FIX IT?-Mr. H. P. Robinson, of Tunbridge Wells, is an eminent photographer and a thorough artist as well. Mr. J. Macbeth has almost entirely copied one of Mr. Robinson's pictures, by means of paint and brush, and hung the aforesaid copy in the Dudley Gallery, without credit to Mr. Robinson. The consequence is a lengthy correspondence, a portion of which we produce elsewhere with remarks. This is one of the many cases of this kind, and they are of course very annoying to the photographer, and place the painter in a very disagreeable position. How we are to fix the matter we do not know. It is customary for photographers, when they copy the works of painters and engravers, to give full credit on the mount to the engraver or painter of the original. Why should not photographers be entitled to a similar consideration, by having their name painted with that of the artist on the back of the canvas, side by side with his, in the catalogues of pictures on exhibition? It seems to us this is no more than fair. A better understanding between painters and photographers should be arrived at some way, so that peace may reign between those who should be so closely allied to each other, and who should work together rather than antagonistically.

THE municipality of the town of Châlonsur-Saône has just voted the sum of 5000 francs, for the erection of a monument to the memory of Nicephore Niepce, who died July 3d, 1833, forty-four years ago, poor and unknown, bequeathing to his country the glory of one of the greatest discoveries of the century.

SCIENTIFIC EXPEDITIONS seem to be the order of the day. Princeton College, N. J., sent out an expedition to the Far West last month for exploring purposes and geological research, and two of the students accompanying it were skilled in photography, and took with them a complete set of apparatus for the wet process. A personal interview with one of these young photographers at the late commencement satisfied us that the photography was in good hands for that expedition.

Another expedition goes around the world, called the "Woodruff Scientific Expedition" of 1877-9, under the management of James O. Woodruff and General Daniel Macauley. It proposes to start October 4th, and make a trip entirely around the world by way of St. Thomas and Barbadoes and the West Indies, the Island of Marajo at the mouth of the Amazon, Rio Janeiro, Montevideo, Buenos Ayres, to the straits of Magellan, which will be reached in December. The vessel will then proceed through Smyth's inland channel to the Gulf of Penos, to Valparaiso and Santiago, thence to the Society and Navigators Islands, the Feejee Islands, Australia, thence southward past the Solomon and Carolina Islands and Tokao on the southwest coast of Toomosa, thence to Japan and the great inland Sea of Japan, visiting the various cities, thence to Yokohama and Jeddo, thence to China, visiting Shanghai and other cities. From Canton the expedition will proceed to Manilla, the capital of the Philippine Islands, thence to the Islands of the Sooloo Sea, to Macassar and the islands of the Celebes and Borneo, thence back through the Straits of Macassar and Java. From Java to Siam, and from Siam to India. From thence to the Persian Gulf, to Arabia, Egypt, Palestine, Greece, Sicily, Switzerland, France, Spain, Portugal, and thence to England, Ireland, and Scotland, and back home again, touching on the way at the Azores or Western

Islands. Such a magnificent trip should be hankered after by everybody who has the money and the time to accompany it. A photographic staff will make up a portion of the expedition, of course; for what expedition would think of leaving shore minus a photographer? Anybody is at liberty to accompany the expedition, and all correspondence should be addressed to General Daniel Macauley, corresponding secretary, Indianapolis, Indiana.

QUITE a number of exhibitions are about to take place in Europe, and we find a liberal offer made of medals for photography, including promises from Amsterdam, Vienna, Paris, and London. Heretofore the medal business, in photography at least, has been a good deal of an empty farce. Of course the medals are given for the best pictures that are shown, but the pictures that are shown are not always the best pictures that can be made. If the juries were composed of photographers who were well posted on the capabilities of the art instead, as is usually the case, mere guessers and incompetents, there would be more credit given to the man who obtains the medal than there now is, and medals should be withdrawn unless the work is really as good or better than anything that has already been produced by photography. We believe in encouraging photographers to do their best, and as we have often advocated before, now advocate the plan of making at least two or three real pictures by every skilled artist in the country. This should be done, every attention being paid to each detail, even if the photographer be compelled to close his gallery to the public for a week. We are quite sure there would be no money lost, for it would pay, not only in dollars and cents, but in reputation and practice.

WE have been hoping to hear from a number of our readers who would signify their willingness to compete for another gold medal, which we are willing to offer, and again make the request that if a sufficient number signify their intention to compete, we will repeat our offer of a year or two ago. What is your desire in the matter, ladies and gentlemen?

# THE HISTORY OF SCULPTURE.\*

BY DR. S. P. LONG.

THERE are none of the fine arts which the Greeks made so exclusively their own, or brought to such perfection, as sculpture.

The history of early Grecian sculpture is so involved in obscurity that it is hardly worth while to spend our time in trying to learn its condition, or in seeking to know who most excelled in it. We read of one Dædalus as surpassing all who preceded him; but even he, if such a one ever existed, could have been great only in comparison with his less excellent contemporaries, for it was not until several centuries subsequent to him that sculpture succeeded in obtaining even a tolerable likeness of the human form.

The city and the citadel of Athens had been burned by the army of Xerxes. This, in one aspect of the matter, was a fortunate circumstance; for the Greeks, nevertheless, being conquerors, it eventuated in the raising of more stately edifices in the place of those destroyed, and the employment of Phidias to superintend and decorate the public works on the Acropolis of Athens.

Phidias was the first sculptor to avail himself of the advantages of the times. He entered heart and hand into the reformation; and his improvements soon reached the climax of perfection in that wonder of art, the Jupiter of Elis and the Minerva Athene, the protectress and patroness of the capital of Greece.

The emulators of Phidias were Alcamenes, Critias, and Nestocles, and, twenty years afterwards, Agelades, Callon, Polycletus, Phradmon, Gorgias, Lacon, Myron, Scopas, and Parelius, some of whom, doubtless, were fellow-workers with Phidias in the adornment of the temples of Minerva and Theseus. The chief builders were Ictinus and Callicrates, but the presiding and controlling power of the whole was Phidias. His superior genius as a sculptor, in addition to his knowledge of painting, "gave a grandeur to his compositions, a grace to his groups, and softness to flesh, and a flow to drapery, unknown to his predecessors, the character of whose figures was stiff rather than dignified, their forms meagre and turgid, the folds of the drapery parallel and poor, resembling geometrical lines, rather than simple but ever-varying forms of nature. Minerva, who before had been rendered elderly and harsh, was by him rendered young and beautiful, yet severe; and Jupiter, who by previous sculptors had been rendered simply venerable, was by him rendered sublime and awful, as when, according to Homer, his nod shook the poles, yet benignant and mild as when first he smiled on his beloved daughter Venus." That is, Phidias did rightly what his predecessors had done wrongly. The historic record is brief, but it embodies a great idea, and all that is necessary to illustrate the difference between true and false art.

Phidias not only determined the forms of these divinities, from which no sculptor or painter afterwards presumed to deviate, but the countenance, figures, and attributes of all the other divinities of Homer were settled by him and his successors, whose laws became immutable, and were willingly submitted to both by artists and people.

It is to be noted in this connection that the character of the father of the gods being determined settled the scale of gradation for his progeny, those near him being rendered more sublime, those more removed less perfect, and, further, that a strong family resemblance is preserved between Jupiter and his progeny. This is particularly observable in the Apollo, Bacchus, and Mercury. It is also to be remarked that in the Greek system corporeal excellence attends upon divinity, and as the character recedes from this the form partakes more of the animal. Satyrs, the lowest order in the train of Bacchus, bear strong resemblances to different quadrupeds; the figure and face partake of the ape, the ram, and the goat.

There are, doubtless, other features in the Greek system that it would be interesting to notice, but the above will suffice to show the solid basis upon which it was founded; in everything which the Greeks attempted in art they acted in accordance with natural and general laws, and therein lies the secret of the universal and enduring admiration that has been bestowed upon all their productions. How they were enabled so suc-

<sup>\*</sup> To be read in connection with "Our Picture,"—ED.

cessfully to apply those laws and reach the perfection they attained in sculpture is a question the solution of which is to be sought for and found "in the forms of their mythology, consisting of gods bearing the forms of men and women, without any other attributes than those possessed by human beings, yet greater and more beautiful than mortals."

"Other idolatrous nations have distinguished their gods from men by a thousand vulgar expedients,-the Egyptians, by a strange symbolism; the Hindoos, by adding heads, limbs, and arms without number; and others by the size and precious materials of which their images were made. But the pride or vanity of the Greeks would not allow their gods any attributes they did not themselves possess; and consequently they ever remained distinguished from mortals but by their greatness, their beauty, and their immortality. When, therefore, it fell to the sculptor to portray them, he had only to concentrate every human perfection and every human beauty until the image was too perfect for a mortal and became a god."

Completeness, however, in their representations was not reached at once; but artist after artist advanced step by step towards the great ideal, and added beauty to beauty until the images became what we see them.

The rapid career of Phidias might seem to contradict this progressive theory; but it is to be borne in mind that at the time of his appearance sculpture was not a new art any more than was painting in Italy on the appearance of Da Vinci, Michael Angelo, Raphael, Titian, and Correggio, nor was the perfection reached in Greek sculpture greater or more immediate than that exhibited in Italian art. There doubtless had been many prior fruitless attempts by the Greeks to portray the father of the gods, as there had been by the Italians to portray the Madonna and the prophets; but no one previous to the coming of Phidias, Da Vinci, Michael Angelo, and Raphael had been found fully to grasp the great conception. Nor would they have succeeded but for the vain attempts made by those great though inferior artists who preceded them. Phidias, Da Vinci, Michael Angelo, and Raphael were the product of all previous efforts, as they were in greater or less degree the authors of all subsequent success. And there is nothing peculiar in this; it has characterized the advance of every art and every science since the creation of man.

"The first object of the Grecian sculptors was to represent perfectly the human form. This they attained with a degree of perfection that even now astonishes us; nothing more perfect than the anatomical development of the figures of the Parthenon can well be conceived of, for not only every joint and every muscle is perfectly imitated, but their motions and actions are indicated so distinctly that we can almost predicate what the next position would be, were it suddenly endued with life."

"This, however, was not with the Greeks the end of art, but subordinate to a second and more important one, namely, to refine the human form into that of a god," not by copying exactly any single individual, however perfect, as the product would have been a mere mortal, but by gathering into one congenial mass scattered beauties of the human race, and thus producing forms superior to any one original, and constituting, as already stated, according to their ideas, something divine. It is true that according to our ideas they failed. But we must judge them by their own light; and even if we deny the divinity of their figures, we must admit that in the attempt they produced the noblest corporeal representations of mortals the world has yet seen; for the Apollo Belvidere and the Venus de Medici still stand without a rival in modern art. Their greatest and perpaps only want is the highest class of expression.

But the Greeks possessed another class of beings, scarcely less beautiful than the gods themselves, whose acts and figures it was the peculiar province of the sculptor to embody,—"all those godlike, god-descended heroes over whom their earliest bards had spread their veil of poetry, and thus separated them from the ordinary race of men."

And still another class, which claimed to a great extent the attention of the Greek sculptors, and which deserves a brief notice in this connection, were the Gorgons, the Hydras, the Harpies, the Minotaurs, and Centaurs, perfect absurdities in themselves, and blots on pure art; "but the elegance with which they are executed, the idea they express, and the animation and power with which the sculptor has endowed them, has sufficed to redeem what otherwise would be revolting."

# SOCIETY GOSSIP.

THE stated meeting of the Indianapolis Photographic Association met at Mr. D. L. Clark's gallery. Owing to the inclemency of the weather but few of the members attended. The President and Vice-President both being absent, Mr. W. H. Potter was called to the chair, and in the absence of the Secretary, the Corresponding Secretary acted in his stead. The minutes of previous meeting were read and approved. Remarks upon the subject of Sunday photographing, as previously announced for discussion, were called for. Mr. Elliott, being the first to respond, opened the debate by reading a very able and interesting paper on that subject. All spoke freely on this important subject, and it is inferred from the tenor of the remarks that most of the speakers feel the necessity of taking steps towards suppressing the practice, believing that if the task of persuading those who are in the habit of keeping open their galleries on Sunday to desist is undertaken, it can be accomplished, and that it will have a tendency to elevate our profession in the minds of a discriminating public more than anything else the Association can do. Mr. Potter suggested the idea of appointing a committee to wait upon those parties who are not members of the Indianapolis Photographic Association, and inform them of he intention of its members, and if necesary prosecute any offenders.

Society adjourned to meet at Mr. Gorlon's gallery on the first Monday evening n July.

W. A. BISHOP, Corresponding Secretary.

PHOTOGRAPHIC SOCIETY OF PHILADEL-THIA.—Stated meeting held Thursday, June hth, 1877, the President in the chair.

The minutes of the last meeting were read and approved.

On behalf of the committee, Mr. Barrington read a report of the last "outdoor" meeting of the Society, in which seventeen members participated. The day was pleasantly spent in a trip up the Delaware River in a tugboat chartered for the occasion. The cameras of the party were brought in requisition often, and negatives secured of the various objects of interest on the route.

Messrs. Corlies and Bates exhibited prints from negatives taken on "washed emulsion" plates.

Mr. Carbutt exhibited a number of specimens of his collographic printing, which were much admired, and in regard to which Dr. Seiler remarked that he had carefully compared it with other work of this character, and considered it the best that had come under his notice.

The President exhibited a very neat developing case, which contained every chemical necessary for the development of dry plates in the minimum of space.

Mr. Wm. H. Rau was duly elected a member of the Society.

The President gave a very interesting account of his photographic trip to Pike County, on which occasion he had the opportunity of giving the washed emulsion process a very complete trial on the most difficult subjects, with exposures varying from a few seconds to nearly an hour. He expressed himself much gratified with the results, and considered the process the most trustworthy dry process that had yet been brought to his notice, the result in many cases approaching very nearly that of firstclass wet-plate work. Prints from the negatives taken on this occasion, which were shown by the President, fully justified all that he had said in favor of the process.

Mr. Barrington as chairman of the Committee on the next outdoor meeting, reported that arrangements had been concluded for a trip down the Susquehanna Canal, from Columbia to Havre de Grace, that a suitable boat had been secured for the accommodation of the Society, and that the trip would probably take from four to five days. After discussion, June the 13th was fixed for the time of starting.

Some excellent negatives on washed emulsion plates, and prints from them, were ex-

hibited by Mr. Rau, as specimens of Mr. Young's work.

Mr. Bell gave a very lucid explanation, accompanied by diagrams, of Mr. Seibert's method of making panoramic views, as far as related to the movement of the camera, which he said should be pivoted under the centre of the lens and not at the centre of the box as is usually the case.

On motion, adjourned to meet the first Thursday in July.

GEO. W. HEWITT, Recording Secretary, pro tem.

## GERMAN CORRESPONDENCE.

Acknowledgment of American Work in Europe—Discussion of the new Lenses, called Euryscope—Improvements in the construction of Stereoscopes, and in taking Stereo Portraits—Distortion of Albumen Paper Prints—To Make a Slender Face Stout, and a Large Face Slender.

RECENTLY we had occasion at Berlin to see numerous interesting things from America in the photographic line, and I cannot pass over it in silence, especially because the approbation was general. First, I have to mention the photo-crayons of Mr. Kurtz, of New York. They are not mechanically produced by light, but really an artificial work using photography only as starting-point. The pictures have found their approbation not only among photographers, but also among artists, and are still going from hand to hand. Every one wishes to produce similar results, but it seems as yet none have succeeded.

Seavey's backgrounds have been not less interesting. Since Mr. Schaarwächter, of this city, has received two of them, his establishment is visited constantly by photographers who wish to see them, and by artists aiming to imitate them. Mr. Seavey may judge of the approbation which his work received here by the numerous orders he receives from Germany.

The third work of American origin receiving the unanimous approbation of all artists is the splendid edition of Prang, "The Yellowstone National Park," containing fifteen masterpieces of chromo-lithography, after the excellent water-color

sketches of Mr. Moran. They spread before our eyes a world of wonders heretofore unseen, for the true copying of which photography is not sufficient, because it cannot give the colors which render that interesting region so wonderfully attractive. In short, America has gained great honor in Germany, and will add to it at the next international exhibition.

Our photographers are attentively occupied by Voigtlander's new lens. Until now the child has not been christened, but at last it is baptized and has received the name Euryscope, i. e, deep seer, and indeed, the instrument contains a greater depth of focus than a common portrait objective.

The instrument about which I wrote in my last letter was one of the small size; but better results are secured by a Euryscope of a larger size. (Especially satisfied with the Euryscopes are the photographers at Vienna.)

The large size, contrary to all constructions of objectives up to this time, is stronger than the small one. Angerer, at Vienna, has taken two groups, one with a five-inch portrait objective of Voigtlander, and one with a Euryscope of a three inch opening. The portrait objective was strongly dimmed, and the time of exposure was nearly the same; but the Euryscope showed considerably greater depth. Mr. Prümm has also made trials with the Euryscope, and speaks very favorably of the three-inch instrument; but the smaller instruments have not realized his expectations. On the price list it says that the three-inch size produces a picture of 133 inches; but Mr. Prümm has entirely covered with it a plate of the size of 22 inches.

In comparison with Busch's five-inch portrait objective, Mr. Prümm gives the following results:

The size of picture with the Euryscope is somewhat less, as is also the strength of the light. The portrait objective requires about 45 seconds exposure; the Euryscope 65. The depth with the latter is greater and the price of it (300 marks) is considerably less.

I believe that the instrument will be employed for taking portraits in Germany only during the favorable season; but in Amer-

ica, where the light is more favorable, it may do better service. The new objective is at all events an instrument deserving great attention.

A connoisseur in optical instruments and lover of photography, Mr. Goltzsch, of this city, has recently published several interesting propositions for the improvement of the American stereoscopes. The instruments which are now in the market are only applicable for pictures on which the pictures of the same subject are standing off sixty-six millimetres on both sides. If we desire to make wider pictures, the distance of the glasses is too large, and must be reduced: because wider pictures in many instances are of great advantage. Mr. Goltzsch proposes to make the glasses movable by means of a screw-like thread, so that they can be brought nearer to or farther from each other. In this case we can use not only a wider picture, but make it easier to look at for persons whose eyes are standing very close to each other. Besides, Mr. Goltzsch is giving some interesting hints about taking portrait stereos. He says:

"What we find passable or even beautiful in plain photographs, will have a disturbing and strange effect in stereoscopes, and this circumstance occurs much more in portraits than in landscapes or architectural pictures. Up to this time the portrait stereos were taken in the same lighting as common pictures. For the latter a heavy contrast of light and shade is necessary to bring out their forms; but this regard is to be mitted in stereoscopes of near subjects, as vell as portraits. Therefore it is improper to ight in the same manner as though we ntend to make effectual cartes de visite. The leep dark shades do not add to their effect n the stereoscope; but, on the contrary, pictures which seem to the eye flat, and nonotonous, are often very effective in the tereoscope. For this reason it should be ried to take portrait stereos in full light with ut very little shade. It is a fact that porarait stereoscope pictures have received so Mr but little approbation, not only in ulurope but also in America, though it esems to me there are made more portrait rereos there than here. If the matter were reated in the proper manner, it would

merit the approbation of the public in a greater degree; but I recommend the use of lenses with a short focus, especially when half-length pictures are to be taken, or they will show excessive plasticity, so that the head often seems to be several feet in front of the body. Take lenses of 8 to 9 inches (equivalent focus), the centre points of which are not farther from each other than  $2\frac{1}{2}$  inches.

Last spring I wrote to you about the strange distortion of albumen paper. This is different in the length of the sheet rather than in the width of the same; for this reason the picture, the negative of which is put on in one or the other direction while copying, seems to be considerably stretched in the length or in its width. I have seen pictures copied on albumen paper of the same sheet, under the same negative, at the same day, toned, fixed, and washed in the same manner, on some of which the face of the person was lean, and on others thick and puffed up. About this circumstance there was at one time much said, and many photographers, although the pictures showed the fault, denied the fact entirely. Especially those photographers who were working for builders and engineers could not be convinced, because they did not like to admit that their pictures are useless. evident that, if this distortion appears always, the proportions of measurement in drawings, etc., must become entirely different, and then, of course, the picture is not correct. One of these photographers, Mr. Marowsky, has investigated the matter carefully and shown that the distortion on his pictures is indeed a very trifling one, or entirely unnoticed, even if he uses strongly albumenized paper. Thereby it is discovered under which circumstances the distortion especially appears. Mr. Lindner, who noticed the distortion on his cards in a very remarkable manner, was accustomed to trim his pictures immediately after copying, and then, as usual, he toned, fixed, and washed the same, and at once after coming out of the washwater he pasted them, and put them on Bristol board. In this case the distortion was a remarkable one. But if we allow the picture to dry after being washed, and paste it up, no distortion is to be noticed. The fact is that the dry picture during the short time of moistening with paste, has no time to expand to any great degree. An expansion takes place, but at first in equal directions, which is harmless; for that reason we notice no distortion on pictures treated in that manner. But if the pictures remain very long in the water, the expansion in the width of the sheet from which they are cut is considerably greater than in its length; and when they are pasted up, this unequal expansion will remain after drying. The expansion is so remarkable that even the people notice it by comparing two pictures.

Though the whole matter is a fault, under certain circumstances it is an advantage. Very often we find persons of excessive meagreness, who wish to appear in their pictures a little stouter, or stout persons who like to appear in their pictures more slender. By the above fault it is in our power to gratify their wishes.

Yours truly, H. Vogel.

BERLIN.

## FRENCH CORRESPONDENCE.

June Meeting of the Photographic Society of France—A Prize of 500 Francs for the best made Camera—A Silver Medal offered by the Society for a substitute for Glass in Dry-Plate Work—Mons. Chardon and his Emulsion Process—Experiments on said Process—Voigtlander's new Lenses—A Lecture on Photographic Astronomy, by Mons. Angot—Willis's Platinum Process in England.

On Friday evening last, the 1st of June, the Photographic Society of France held their monthly meeting, Mons. Davanne in the chair.

After the ordinary business was finished, the chairman informed the Society that the "Ministre de l'Instruction Publique" had granted a farther sum of 500 francs to be awarded as the Society thought fit. The commission thought that as emulsion photography worked very well at present, the Society could do no better than to offer the prize granted by the "Ministre" for the lightest, strongest, the most port-

able, and the best-constructed camera, which would be of great service to take views in newly explored countries, and thus aid scientific knowledge, as well as the geographical studies to be conducted far from the mother country.

The Society furthermore, in consideration of the great service which dry-plate photography did during the last transit of Venus, offers a silver medal to any person who will give the Society the means of making a good substitute for glass in order to carry the sensitized surface, and by so doing diminishing the weight and the risk of breakage of very valuable negatives.

Mons. Chardon, the inventor of the new emulsion process, expressed his dissatisfaction that many of the photographic journals had erroneously written his formula, and publicly stated that he would not be responsible for any inaccuracy which might attend those who followed such formula. Mons. Chardon asked the members to state publicly the success that they had had with his process.

Mons. Andra rose and informed the Society that he had succeeded in a very satisfactory manner in preparing an emulsion from the formula of Mons. Chardon, and that he had also obtained several fine negatives, which he had brought with him to be passed around for the inspection of the members.

I myself have made many experiments with this emulsion, and whether through bad manipulation or impure chemicals, I have been able to obtain but a very faint image, impossible to intensify. I must nevertheless say that although I have made emulsion for years, and have tried the manifold formulas in the journals, I have never obtained an emulsion so fluid and so agreeable to cover a plate as the emulsion made by that gentleman's process. I find a great drawback in them; it is their great slowness. I have sent two or three specimens to Mons. Chardon, and that gentleman tells me that the emulsions are excellent, but much slower than what he makes himself. Now why is this? Must this want of rapidity be attributed to an excess of bromide in the emulsion or an excess of chloride of silver? I shall still go on experimenting with this process, and hope ere long to be able to warn my American readers of the shoals and rocks to be avoided.

Mons. Carette presented to the Society Mr. Voigtlander's new lenses, which he, the inventor, calls "Euryscopic lenses." They are manufactured for taking groups and landscapes, as well as reproductions. A great discussion took place upon the similitude of these lenses to others already in the market made by other manufacturers. Nevertheless a trial was agreed upon, and a commission named to make a report as to their value.

Mons. Angot gave a very instructive and interesting lecture upon the usefulness of photography for scientific studies. The great object that this gentleman had in view and endeavored to show, was that errors might have crept into the calculations made on the last transit of Venus, which had for object the exact distance of the orb of light from our planet, because, said Mons. Angot, the photographic picture may be more or less large according to the time of exposure given. He then passed round several proofs of an artificial eclipse which had been exposed from twenty seconds up to three minutes. Now upon some of the plates the same object was visibly larger, even to the naked eye. In the plate exposed ten seconds, the image appeared small and fine, similar to a little dot over an i, and as upon the same plate a series of proofs had been made up to four minutes' exposure, the gradation in size as well as in force was clearly distinguished. Mons. Angot draws the conclusion that no calculation based upon the contact of the planets will be correct, but that astronomers must calculate from the central point of the two planets to be certain that no error from difference of exposure may derange their calculations.

For the last fortnight I have been making a tour in old England, and seized the occasion to examine personally how the English photographers were getting on with Willis's platinum printing process, of which I have many times spoken in the *Philadelphia Photographer*. Now as there are many advantages in this process over the old silver salt printing, I should certainly say to the

photographic community in America, try it. Its advantages are in the first place unalterability; secondly, rapidity of production; thirdly, similitude of picture as to tone, etc., through one hundred proofs; fourthly, simplicity in the manipulation. I will stop here and relate what I saw. I paid a visit to the Albion Albumenizing Company's works, near London, this company having the right of dispensing licenses. I must in conscience say that I was very disappointed, as the proofs I saw there were far inferior to what had been turned out in Paris. I then went to Blackpool to see Mr. Gregson. In this gentleman's establishment the proofs were all very beautiful; the subjects were artistically arranged, which gave a charm to the whole picture not often seen in photographic prints. Mr. Gregson has ameliorated the process, for by a method of his own the proofs are just sufficiently glazed so as to give the generally admired transparency which is obtained on albumenized paper.

I saw several other gentlemen in England, who were unanimous in saying that the process was certainly the most simple they had ever anything to do with, and admirably fitted for enlargements upon which the painters' art was required.

I know not if this process is patented in America. If yea or nay, I am certain a correspondence in the photographic journals would be welcomed, stating the experiments made and results obtained. This process gives the fine violet color which was so sought after a few years ago, but "la mode est change," and the photographers now require a warm reddish tone. This tone has not yet been obtained with the platinum salts. If any experimenter would state how this tone is to be obtained, he would gain the acknowledgments of all.

PROF. E. STEBBING.

3 PLACE BREDA, June 5th, 1877.

# TYPOGRAPHIC ENGRAVING.\*

Mr. Despaquis sends us the following communication in regard to a process of typography of which he is the inventor,

\* From the Moniteur de la Photographie.

and which has not been published, although since three years it has been explained to a great number of persons, and has been used all that time by a house largely engaged in typographic engraving.

From a positive on paper or on glass, I make a negative in the camera, enlarged or reduced, and I use my process of photographic retouching to interpose in the passage of the luminous rays, as near as possible to the collodion or sensitized coating, a glass plate on which I have dusted, through a very fine sieve or a fine and close cloth, plumbago in powder. This powder, very fine yet opaque, being properly distributed on the intervening plate, produces a negative pierced with thousands of holes in the blacks and half tones. From this negative I obtain a positive on metal, either by the bitumen or the fatty ink processes, by transferring to the metal a print obtained on autographic paper by means of the engraver's ink or varnish.

This positive having reproduced exactly the holes in the negative, the acid when placed in contact will at once pass through these holes, and a metallic plate is obtained that can be used in the printing press, and that from a cliché with half tones.

The same method is employed to make, on lithographic stones, transfers by fatty ink of prints obtained on gelatin from negatives having all the half tones. This kind of print, it is known, is transferred with difficulty on stone, on account of the continuity of tone and want of grain in the photograph. The lithographic stone requires a grain; that is to say, that the stone should be bare in certain portions of the image so as to take up the water which is to repel the ink in the whites and the half tones, otherwise silhouettes would be obtained having no difference in the tones, excepting in the high lights.

The fine half tones do not hold on the stone and are detached by the roller around the high lights, and spread them, whilst the strong half tones, taking the ink as the blacks do, form a kind of incomplete silhouette very disagreeable to the view. It is seen that my method is very simple and of very easy execution.

In the next number of the Moniteur Mons.

Despaquis describes the process of engraving for seals and stamps, and promises to soon make known his process for copperplate engraving.

Here is the process I have used since five years for making seals, wet and dry stamps, watermarks, etc., for letter paper, drafts, etc., from a photographic cliché with half tones.

I make a positive on glass with a powdery fulminating cotton, to which has been added a few drops of castor oil, to give it flexibility and to prevent its breaking alongside of the line made by the steel point forming the graver, as will be explained further on, or I take a positive obtained by the albumen process; the gelatin positive will not answer, as it tears in making the line.

I select a positive having decided whites and blacks, and not light-gray positives of almost uniform tones.

With a steel point I make in the blacks of the image and in the high half tones fine lines, and spaced like those that are made in those parts by the wood engraver. The point lays the glass completely bare; that is to say, entirely removes the collodion in each drawn line.

With a pen, or very fine brush, and India ink, or any other anti-photogenic color, I draw, contrary to what has been done for the black, lines or a very fine stippling in the whites of the image and in the delicate half tones, so as to make a fac simile of wood engraving.

To do this work more easily, which, however, is not difficult, and which was made for me very cheaply, and to better space my stippling, I took a positive at least as large as a whole plate, and from this worked positive I make a smaller positive of the size required for the seal, stamp, etc.

From this small negative I make a positive on metal (melted steel if for water-marks or dry stamps), by the bitumen process, and this process not retaining the fine half tones, when the coating has been exposed on the front under the cliché, these fine half tones are carried away in the washing with essence at the time of the developing of the image, and nothing remains in these parts and in the whites but the

stippling or the fine lines made by the pen or brush.

The print being well developed in essence, well washed, and the metal well exposed in the parts which are to be attacked by the acid, nothing more remains to be done but to use the acid or graver by the already well-known methods.

DESPAQUIS.

[Note.—In referring to his preceding communication, Mr. Despaquis begs us to call attention to the fact that the process described in this article will be very useful in chromo-lithography in allowing the transfer upon stone of a photographic print having the character of an initial type or matrix, which will enable artists to make their tones so as to produce chromo-lithographs, which will combine with color the truthfulness of photographic prints. This observation applies equally well to the process now described by Mr. Despaquis, although it is more costly and less easily worked than the one given in our preceding number.—Ed.]

# WONDER OF WONDERS!

BY I. B. WEBSTER.

WILL the end of photographic wonders never come? Here we have been grovelling in the dark all these years, and even the carbon man failed to help us out of this difficulty. No, sirs; it fell to the lot of home talent to discover how to make family groups by proxy. All the parties can remain at home enjoying the cool temperature of their own cozy parlors, and secure the group at the same time.

Shades of departed worth wake up, and hear this wonderful truth! Where now is the wonderful pigment printing? where, oh, tell me where! are all the wonderful discoveries of the past? How utterly insignificant they all seem compared to this one grand flight of inventive genius towards the very apex of fame's pinnacle. Sound that all may know, that for the paltry sum of \$5 they can secure all the benefits of this 'immense discovery.' And then for an addditional \$2 they can have the ghost dis-

pelled for life. Oh what happiness, that I should have lived to see this day and date!



I see by the last *Photographer* that my advice to W. H. L. in regard to scratching has called forth over a column of refutation. Now, I simply stated what I believed, and do believe to be a fact, viz., that prints mounted on prepared cards are more liable to scratch in the burnisher than those mounted with starch.

I used the Slee mounts for some time before burnishing came into general use and for quite a while after, and only discarded them after failing to get rid of the scratches, although I tried everything I could think of or get hold of.

I am well satisfied in my own mind it was not carelessness on my part, as I have had comparatively no trouble since using starch, and have taken less pains than with the prepared cards. I have used the lubricator, as given by R. W. Dawson, for some time, and consider it the best that has ever been published.

The reason so many are troubled with scratches in using starch is that in pasting the print they use more than is necessary, rub it down and lay it aside with little patches of paste sticking along the edges of the card that have been pressed out from under the print, which when dry are hard as a diamond, and being detached under the roller are one of the principal causes of scratching. I lick my prints after rubbing them down. We are told this causes reticulation, but I have never been troubled with it.

If you do not admire licking, or have other uses for your tongue, take a damp sponge.

Don't plaster your prints with tobacco juice. If Slee Bros. or A. G. Wheeler will give us a reliable process for using the prepared cards to the exclusion of scratching, I for one will gladly go back to them, as I consider them a great saving in time and trouble.

GEO SPERRY.

Mt. Vernon, IA.

In our favorite journal for the current month, there is an article bearing the title of "A Neglected Method of Intensification." Formula is given—sulphate of copper, bromide ammonium, and Schlippe's salt. That part is all well, but the mode of treating the negative with the above is left out, therefore it proved to be a successful failure in my hands. I would like to know through your valuable journal, if it is not asking too much, could the writer of said formula give a little more information bearing on the same? I feel interested, and if it is really convenient, would like to hear from your subscriber

Respectfully submitted,

THOS. JONES.

To the Nevada Subscriber.—I was out of the photographic business about four years, and commenced again last December; and the first thing that set me back was the failure to work my paper, and your complaint in the June number of the Philadelphia Photographer gives my experience exactly.

I used five different brands of paper, and all with the same result, but am working all O.K now, and thinking I may help you will drop you a few hints concerning my way of overcoming the difficulties. In the first place I never could work a neutral or alkaline bath successfully; 50 grains and decidedly acid is satisfactory to me; the longer you fume the darker the tones; plenty of alcohol in the bath; don't forget it, tone with any formula; but be sure and put salt in your toning with plenty of alcohol; don't have your fixing so strong, and put in a good quantity of salt, and don't forget the alcohol.

In the *Mosaics* for 1877, you will find a formula by Mr. J. R. Clemons, which I find works well as a paper bath. If you want

to redden your prints before toning, do it in a solution of salt, which is far better than acid, for the makers of albumen paper do not salt it as they used to do, and that, I think, is the reason why salt prevents the granular surface, blisters, etc.

> V. E. DAKE, Chilton, Wis.

#### THE TABLES TURNED.

Not a great many years ago, the distinguished society of the "Knights of the Pencil and Pallet," held an indignation meeting in the city of London, to consider their duty in the matter of the birth of an unexpected child in the department of arts. The gist of the discussion seemed to be whether they should allow the infant to live and to grow by paying tribute to their distinguished body, or whether upon the principle of their Roman ancestors they should murder it entirely, and clothe its memory with ignominy. This infant was " Photography," and while the general conclusion among the august knights was that promiscuous photographing of the public by this unfledged disciple of the art was an undesirable thing, still they were unwilling to bring blood upon their own skirts, as too much carmine in any picture is also an undesirable thing and would reflect discredit upon the aforesaid indignant membership; and thereupon they passed an ordinance in the nature of a license law. This ordinance provided that no photographer should be permitted to ply his trade in the city of London unless he was accompanied by a license from the corporation of the "pencil and pallet," which license should distinctly state that although the holder thereof was permitted to make pictures, the public must distinctly understand that he had no claim to the nom de plume of "Artist;" in fact that he was very unworthy to be considered as the least bit of an "Artist," and that his business should be confined to the narrow lanes and streets of London, never to be within one mile of any studio of any member of this distinguished board of knights. This license the holder was compelled to carry in his pocket continually, and worse still, to have it plainly posted up at the door

of his business-place, and in his receptionroom. All unlicensed photographers, and all photographers not provided according to law, were to be trampled under foot, and their hopes ruined by a committee of official knights, and punished with everlasting disgrace. Of course as soon as this ordinance was published, all law-abiding photographers hastened to comply with its provisions for what else could they do?

The leading photographers of the city set the example with commendable promptness, and the large and respectable middle class, including such well-known families as the Ambrotypists, the Talbotypists, Collotypists, Hallotypists and Daguerreotypists, were not slow to follow it. Their licenses as described were neatly engraved and printed in high colors, artistic of course, upon mahogany panels, and attached to their proper places with evident pride. Each licensee was entitled to attach himself to some member of the corporation of knights, which knight was to be his duenna, so to speak. Of course there was a great deal of scope for good taste in the selection of the knight who was employed to accompany the aforesaid licensees. They all carefully abstained from making any illegal claims, and seemed perfectly satisfied with such trade as came within their lawful premises, together with such as they could pick up among their respective families and in their respective residences. This honorable behavior was the more creditable since it met with the sneers and rude opposition of the vicious and degraded persons who followed such vocations as lithography, wood-cutting, etc. loathsome wood-chopper made it a point to openly insult licensed photographers wherever he met them, and the less depraved but even more disgusting lithographer was always ready to mob the possessor of one of these mahogany cards. And a worse indignity than this was placed upon our esteemed licensees if one of them aspired to do what the license did not forbid: namely, to make some exhibit of his works in public exhibition. This insult to the knights was violently resented and condemned, and while our licensed friends themselves never condescended to complain of the insults to which they were exposed, they privately

resented it whenever some unwise and curious knight presented himself at the camera to have a photograph taken, by distorting his visage with their most uncorrect lens, or diffusing it with their new Dallmeyer to the height, and length, and depth, and breadth of its capabilities in that direction. An occasional resentment of this kind caused war, because it was difficult for even the ablest licensee to destroy the beauty of a muscular knight without being found out, when he was himself in charge of a member of the same distinguished body of individuals. Thus it happened that when a licensee was guilty of any playfulness toward any knight, the accompanying knight was sure to become inextricably entangled in the squabble, and somebody was sure to get hurt, and this somebody was usually the infant of which we have spoken. This led to a general reluctance on the part of the corporation of knights to license any photographer, and the licensees found it difficult to provide themselves with knights to oversee their work. Moreover, so hot did the dispute become that our feeble infant was in danger of being utterly annihilated. Indignation meetings were constantly held, at which the principal subject of discussion was what to do with photography. It seemed to be the sense of these conventions that if the infant were allowed to grow, that the fine arts would be utterly subverted, and therefore the infant must be made away with. To this murderous intent some of the feeble-minded and conscientious painters objected, and being scorned for their opinions, left the order of "Knights of the Pencil and Pallet," and themselves took up the miserable profession of photography. In spite of all these discouragements the respectable licensees took courage from the action of the seceding knights, and persevered in doing their whole duty as law-abiding persons. This perseverance and persistence caused the distinguished corporation to apply to the lawmakers for redress.

They had imprecated, threatened, condemned, and made sport without avail; they had offered resolutions to the effect that photography was not and could not be a "fine art," that it was unworthy of the consid-

eration of the public, and its products were not lasting, and that none but the most degraded would permit the works even of their own licensees to hang within their dwellings. But all these were of no avail, and they asked for the appointment by the Lord Mayor of a photographer-catcher who should arrest and imprison all who attempted to deface the fair form of "high art." No official catcher, however, was appointed, and despairingly the knights again set to work and issued a circular of threats to the licensees, giving them the choice of what manner of death they should prefer. all this was of no avail; the licensees hung their heads, and with base presumption declared that they preferred that things should remain as they were. This brought the knights to a standstill; they did not wish to commit murder, or even to force suicide upon the now full-grown boy, but they organized themselves against it with such unanimity as the recent class of cadets at West Point for four years organized themselves against the claims of the negro student who was appointed with them. The result of this criminal action on the part of both parties brought about a very disagreeable state of things; the lawless licensees became bolder than ever. Moreover, their works continued to improve, and pictures of men, women, and children were scattered through all the chief thoroughfares, and given entrance into every family in the staid old city of London.

Even the offensive practice of placing a man at the door of their studios was taken up by the licensees; the duty of the aforesaid man being to invite customers from the passers by. This revolting behavior fairly consumed the ancient order of "Knights of the Pallet and Pencil," and before long the terms of the licenses were brought into universal contempt, and the conviction among the people began to grow, that photography was entitled to some artistic merit, and that photographers were entitled to call themselves artists, and the opinion seemed to grow among the licensees, that the order of knights was fully competent and able to give licenses, but entirely unfit to execute their conditions, and the distinguished order was permitted to fall into contempt among

intelligent men. After many other efforts on the part of the knights to suppress and condemn photography, they were compelled to yield; first, however, having tried to compel the licensees to make their portraits from the paintings of the knights themselves, and not from the individual direct, thus causing the great public to go to the painter first and then to the photographer; but there were difficulties in the way of this, and the result of it all was, to make a long story short, that the tables were turned, that our soreheaded knights, finding that their own business was somewhat injured, were compelled in order to lessen their labor, and to cheapen their price, to go to the photographer and make use of his work for their purpose.

This for a long time was done without any credit, but after much effort on the part of their former licensees, the photographers succeeded in getting their own name placed upon the picture with that of the painter, and very justly so. What took place in portraiture has now begun to be followed in landscape work, though not fully followed, for we find the famous landscape painter using the studies of the photographers, "conveying" their qualities into his own paintings without credit. The members of the photographic profession in London being all amiable and honorable men, submitted for awhile to this discourtesy and wrong, until the appearance of fine paintings hung in art exhibitions of London, copied from the works of celebrated photographers, became so frequent as to cause general indignation. In fact they were "mad," and several violent cases of malignant hydrophobia occurred. Fortunately for the photographic art, these cases were not all fatal, and we find our old and esteemed friend Mr. H. P. Robinson, of Tunbridge Wells, near London, of the cases named, showing a " method in his madness," which is gratifying in the extreme

A certain Mr. J. Macbeth, one of the real knights already alluded to, took it upon himself to "convey" to one of his paintings the details of one of the superb marine photographs of Mr. Robinson, of which conveyance Mr. Robinson complained. Mr. Macbeth's painting was ex-

hibited as a product of his own ideas in the late Dudley Gallery Exhibition in London, and was numbered in the catalogue 136. With a few trifling omissions and alterations, Mr. Macbeth's picture was identical with Mr. Robinson's, an accident which, since the battle of the knights and the licensees, is liable to occur at any time in all well-regulated studios. Now, Mr. Robinson's method consisted in complaining to the Secretary of the Dudley Gallery of this injustice, and the unjust appropriation of his property by another, and by the aforesaid secretary was snubbed, and for three months no satisfactory answer was received from the committee before whom Mr. Robinson requested the matter should be brought. Thereupon the treasurer of the Dudley Gallery was addressed, which treasurer's name was Mr. Hamilton, K. of P. P. Mr. Hamilton, K. of P. P., responds to Mr. Robinson, and asserts that the grievance, if any, is with the artist who copied the picture. To this very singular answer Mr. Robinson writes as follows:

I asked to have my complaint placed before the committee. It was not for me to dictate to the committee what they should do to vindicate the honor of their exhibition. I knew there were gentlemen on your committee who would not countenance a theft disguised under any circumstances whatever, but I expected that the artist who had perpetrated the imposition might possibly have been warned that in future he must not break your rule that no copy be sent for exhibition. I expected that as the drawing was in some sense an attempt at a fraud, it would have been withdrawn from sale, if not from exhibition. I expected that your secretary would fulfil his promise, and place my letter before the committee, which was not done.

I have no complaint against the committee. The committee has had no opportunity of doing me justice, or the reverse, not having had my letter before them. I am sorry I cannot get my letter under the consideration of the committee, but my purpose will be nearly as well served, if not so pleasantly, by the publication of this correspondence for the guidance of photographers in similar cases where their thoughts and de-

signs are "conveyed" in a like unblushing manner.

I am, sir, yours obediently, H. P. Robinson.

EDWARD HAMILTON, Esq., M.D.

DUDLEY GALLERY, May 8th, 1877.

SIR: I beg to inform you that your correspondence was this day laid before the committee, and to state that no meeting of the committee has been held since the opening of the gallery, until quite recently, and, therefore, that your letter had appeared to be neglected.

The committee regret that there should be any appearance of plagiarism on the part of the artist to whom you refer; but they consider that the matter rests entirely between the artist and yourself.

I am, yours obediently,
ROBERT McNAIR.

H. P. ROBINSON, Esq.

To the Exhibitor of the Copy.

Tunbridge Wells, May 9th, 1877.

Sir: In the Dudley Gallery is a drawing (No. 136) to which your name is attached in the catalogue. This picture is a direct copy of one of my photographs. I have had a correspondence with the Secretary and Treasurer of the Gallery on the subject of this misappropriation of my property, which correspondence I am about to publish; but before doing so, I think it only just to give you an opportunity of explaining, if you can, why you have copied my picture, and why you call it your own, seeing that the design, invention, composition, and light and shade, are mine. I may add that the photograph is my registered copyright.

I am, sir, yours obediently,

H. P. Robinson.

JAMES MACBETH, Esq.

23 NEWMAN STREET, OXFORD STREET, LONDON, W., May 10th, 1877.

SIR: I am obliged by your letter, which gives me an opportunity of clearing myself from the charge of infringing your copyright. I saw the photograph in the house of a friend. I borrowed it to assist me in some minor details of the water in the drawing you complain of, supposing it was a photograph from nature done for the use of

artists, who are, as a rule, the only buyers and appreciators of such works. Had I known that the design, invention, composition, and light and shade were your own, I should have no more thought of using it than I should think of copying a picture by a brother painter.

The Secretary and Treasurer of the Dudley Gallery are in no way accountable for the matter, and the publication of your correspondence with them would serve no good purpose. If you like to publish this letter you are at liberty to do so.

I am, sir, yours truly,

J. MACBETH.

MR. H. P. ROBINSON, Tunbridge Wells.

TUNBRIDGE WELLS, May 22d, 1877.

SIR: In reply to yours of the 10th, allow me to say that the mistake you and some other artists make is, that photographs are as much open to you to copy as nature herself; just as if they were taken by chance and were common property; whereas, the best photographs are almost, if not quite, as much the result of artistic design as paintings.

As to your having borrowed "minor details," only a glance at the two pictures would convince any one that the sea is copied in every detail as nearly as you could do it. Suppose a dozen painters had copied the same photograph, whose would have been the original picture? It is a fact that I intended to make a painting based on the photograph of mine you copied. If I fulfilled my intention and sent the picture for exhibition, it would be said at once that my painting was a copy of your drawing, just as if I had stolen your sketch from nature of the subject and copied it.

There is a purpose to serve in publishing the correspondence which you do not seem to see. It would serve to make known to painters a fact of which some of them do not appear to be fully aware, which is, that there is as much property in a photograph as in a painting, and that it should not be appropriated without permission. I do not object to painters taking hints and suggestions from my pictures, just as they may from the works of artists in other materials; but I do object to your sending a copy of

my picture to an exhibition, and calling it your own. I am, sir, yours obediently,

H. P. Robinson.

JAMES MACBETH, ESQ.

Now, it would seem from this that the K.'s of P. P. must find some other plan for killing their ancient licensees. They have committed the error of permitting too many licensees, who are now disposed to overwhelm them. Their only way out of the trouble is to submit gracefully. Not more than a week or two since, within the goodly and immaculate State of Pennsylvania, in one day ten persons were hung by the neck until they were dead, because they defiantly expressed the opinion that "hanging was played out." Shall it be that all those members of the Ancient Order of K. of P. P. shall be hung because they impudently still strive to maintain that photography is played out? Surely, if they continue openly to express such views as this, when and where they will, without the slightest fear of punishment, shall we as good and moral photographers not hang the whole of them, and thus wipe out from the face of the earth every unlicensed and presumptuous painter, including all the K.'s of P. P. and their children unto the fourth and fifth generation? With all seriousness, we feel that the time when photography should be fully respected in every sense has come; nay, not has come, but has been here for a long while, and we are glad to see Mr. Robinson, who has won a right to maintain the highest standard for photography by his excellent work, plucky and persistent enough to push this matter as he has, and we rejoice in his publication of the entire correspondence between himself and the sinning parties. Surely matters have come to a pretty pass when a member of a respectable society of artists can deliberately pillage the work of the photographer and presumptuously hang it before the public as his own design and composition with impunity, and we are surprised that the committee of the Dudley Exhibition could not see their way clearly to pass a resolution of condemnation at least. We have no doubt that after the publication of the correspondence by Mr. Robinson, that the crowd around No. 136 was sufficient to bring to the place a dozen extra members

Macbeth is daily making honorable repu- matter. So mote it be.

of the Lord Mayor's police, and that Mr. | tation by his very creditable conduct in the

# Editor's Table.

WE have received from Mr. Aaron Veeder, Albany, N. Y., some very interesting views of the interior of Howe's Cave, Schoharie County, N. Y., taken, so we are informed by the cards, by a calcium light. The views of course are not up to such as would be made if sunlight were possible, but considering the circumstances under which they are taken they are excellent, and show many interesting formations within the cave. In a number of cases the source of light is shown, and it seems to us that the apparatus looks like the apparatus for the magnesium light. The view of the lake is especially interesting, showing as it does the stalactites from the roof of the cave reflected in the water below, making the whole scene a very strange one. The view of the foot of the lake is also very good, and the whole of them are very different from anything we see upon the face of the earth, and altogether fine examples of underground photography. We congratulate Mr. Veeder upon the result of his labors.

Mr. Charles B. Melendy, of Cedar Falls, Iowa, sends us a print from a negative made inside of a conservatory, which is quite successful. Mr. Melendy tells us that he makes a specialty of this class of work.

Mr. Robert Benecke, St. Louis, Mo., has sent us some very creditable examples of photo-lithography, a branch of our art which he is now prosecuting with a good deal of vigor. These embrace some interesting collections of pottery, some views from nature, and other interesting subjects. Mr. Benecke is one of the most persevering and able workers in special branches of photography in the country, and plods along his careful way without saying much or making much noise, but always succeeds. We hope he may get rich in this new branch of our art.

OUR COMING PICTURES .- We have several very nice pictures in preparation for our future numbers, some of which will be interesting on account of the process by which they are produced, and others on account of their excellence as compositions and as photographs. We have not reseived a large response to our announcement hihat we would make another series of prize offers

if a sufficient number of parties should agree to compete. We are willing to hear from some more, and hope we may do so during this coming month, before we make the offer in our next number.

OUR CARBON PICTURE .- Mr. Gentile promised to have a specimen by the Lambert process ready for us for our June number, but we fear the quantity which we require has baffled kim. He seemed to have had no difficulty in supplying a quantum suff. for the St. Louis Practical Photographer, but difficulties seem to be in the way of our getting enough, and we have not yet received them. A note from Mr. Gentile says: "Just having received the transfer paper from Europe, we are just commencing work on the pictures of the group for your journal, but it will be impossible for me to get them printed all this month. We shall work on them every day until we get them finished. Everything connected with the process being manufactured in Europe causes delay, until sufficient stock is kept in this country. I do not think I can promise to get the carbon prints for your journal done until the end of July or the beginning of August. I am anxious to see if the process can be worked successfully during the hot weather. I regret the delay, but it has been unavoidable on account of my using a transfer paper different from that kept by the Messrs. Anthony & Co. of New York."

Our readers will therefore please be patient with us and with Mr. Gentile until we can produce the promised picture.

WORDS OF GOOD CHEER .- Some of our subscribers have recently sent us some very gratifying testimonies. For what reason these spontaneous words of good cheer have been sent to us now we know not. At the first of the year we got a full share of them, and now the supply seems to be coming semi-annually. We trust we may not be accused of vanity if we make a few extracts from some letters received last menth, since such seems to be the custom of journals everywhere. Mr. R. Benecke, St. Louis, says: "I am a life subscriber to your journal;

never stop it." Mr. Frank Thomas, Columbia, Mo., says: "I consider your magazine the best; would not be without it. At the end of my subscription I will renew again." Mr. E. A. Kusel, Oroville, Cal., says: "I am all out of the photographic business, but will keep the journal a year more to let me out gradually." We have many more such, but we have not the room to print them.

MR. A. J. W. COPELIN, of Chicago, has sent us some very excellent specimens of photography, which are tastefully posed, carefully lighted, and well manipulated. Mr. Copelin is one of the growing photographers of the West, and his work entitles him to grow. We wish him success.

MR. JULIUS HALL, of Great Barrington, Mass., one of our best landscape photographers, signifies his intention of competing for our next prize, and calls upon his fellow-photographers to join him. Who will do it?

A DESERVED TESTIMONIAL. -For the Robinson trimmer, which is well known to the fraternity, a medal and diploma were awarded at the Centennial Exhibition, the chief point of favor in the eyes of the judges being its "utility and fitness for the work for which it is intended." We do not see how a higher testimonial than this could be given to any apparatus, and it is truly, as the judges have said, one of the best things that has ever been introduced for the use of photographers. We shall introduce presently, for Prof. Robinson, a trimmer made for straight edges, which will be a boon to photographers, and thus discard the use of the knife entirely, and save its value in accidentally spoiled prints in less than a week, even in the smallest gallery.

PRINTS FROM WASHED EMULSION PLATES .-We have been favored with a number of prints from washed emulsion plates, made by Mr. J. C. Browne, President of the Photographic Society of Philadelphia, which are alluded to by Mr. Browne in his paper on another page. The chemical effect is surely as good as wet work, and in Mr. Browne's hands the emulsion is undoubtedly a success. Mr. Browne is one of our best amateur landscape photographers, and one of the most persistent and obdurate advocates of the wet process, and to see him converted to the emulsion method is a triumph for Mr. Young, who prepared the emulsion for Mr. Browne's experiments. We believe there is a great deal in this direction, and that it is worthy the trial of photographers generally.

Something Like.—On the 6th of June the Chicago Photographic Society were visited by a number of distinguished gentlemen from different colleges and institutions, and were treated to lectures and dissertations on various subjects. We like to see such enterprise, for it is sure to result in growth.

DEATH OF HON. C. C. GIERS.—Mr. Giers died at his home in Nashville, Tenn., on the 24th of June. He had been suffering some time, and his death was not unexpected. The deceased was one of the most active of our fraternity. He was a member of the House of Representatives of Tennessee, and also represented Tennessee at the Vienna Exhibition, and at the Centennial Exhibition in Philadelphia. He was generous to a fault, and progressive withal, and is a real loss to all who knew him.

Mr. George M. Bretts, of Pottsville, Pa., sends us a copy of a daily paper, in which we find a very handsome notice of his gallery and his work; no doubt fully deserved by him, for he has devoted himself specially to the interests of his patrons, and good work is his motto.

CARBON PHOTOGRAPHS RECEIVED .- Mr. C. C. Gentile, of Chicago, has favored us with a parcel of photographs, including three or four of his large composition groups printed in carbon, one of the latter being of the graduating class of the law college of Chicago. One of the groups we should judge contains two hundred figures. The subjects are posed in the studio, and then arranged upon a large picture with the accessories, etc., worked in, and then copied down to the desired size, and then printed. For one who has worked so short a time at the carbon process as Mr. Gentile has, these pictures show a good deal of merit, though we doubt if Mr. Gentile himself is satisfied that the prints at least are as good as silver prints would be from the same negatives. The same may be said of some very beautiful examples of cabinet size accompanying the others, both silver and carbon prints. We may be obdurate, but we still adhere to our preference for the appearance of the silver prints, especially in tone. Some of the carbon prints are mat surface and some highly glazed surface, which glaze or gloss is secured by the peculiar transfer paper which Mr. Gentile uses. We do not think the prints are so indestructible on this enamel as when a mat surface paper is used, but their appearance is rather attractive to the public.



We have striven during the first half of 1877 to make our Magazine better than ever before. Our patrons tell us that we have succeeded. We shall now try harder still. Our first aim is to benefit our subscribers. We have always conscientiously taken sides against everything we believed injurious to their interests, and beaten it down when we could. Shall such a course be continued and continue to be supported? We have refused large sums for a contrary course, or even for our neutrality, and even now are battling against certain foreign secret processes which the holders desire to introduce here by our co-operation. Give us your support, substantially, and we will help largely to support and defend you. If it does not pay you, we do not ask you to take our Magazine.

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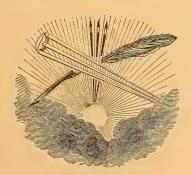
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JOTHAM SHAW.

# Philadelphia Photographer.

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### THE MAGIC LANTERN.

BEFORE many weeks, the season will be upon us when parties will begin to seek amusement in the evening time, and those who have magic lanterns or sciopticons must brush them up, clean their slides, and get ready for work. Permit us, therefore, to commend to those who have them to act wisely, and be ready with their lamps trimmed, and to those who have not, that perhaps they are neglecting one of the most useful methods of advertising and pushing their business that there is. We believe that every town of considerable size could be made to support a firstclass magic lantern exhibition nicely, that any photographer in a lively neighborhood could push his business very much indeed by giving weekly exhibitions from his studio window, or in his studio, if it is large enough, interspersing advertisements of his own among the pictures, and making his name a household word about him. We perhaps open ourselves to the accusation of speaking a word for ourselves, and only a half word for our patrons, for it is well known that we are the largest dealers in lantern goods in America; but s aside from any interest that we may have in the matter, we really feel that many r are neglecting a very important source of revenue.

The photographer who runs a good magic

lantern exhibition can add very materially to his income if he properly manages. We are willing to give our catalogues to those who may apply, with such hints and information as we have, and also refer them to the little publication called the *Magic Lantern*, which we issue still, monthly. This is only to awaken them to the fact that we are in the field and are ready.

# PHOTOGRAPHIC TRAINING OF EXPERTS AND SPECIALISTS.

ANY one who has watched the growth of photography during the past ten years, must have seen how certainly the day approaches; and how gradually and steadily, when the photographer who would keep up with the times must be a very different man, both as to standing and qualifications, from him who tramped the country with portable apparatus twenty-six years ago or more. causes of this are also made apparent. By some hook or crook, the public itself is becoming better educated as to what it has a right to expect from our beautiful art and its votaries, and photographers themselves, becoming more ambitious and anxious to do well, take more pains to educate their patrons to appreciate a higher grade of work which they are striving to produce, until those of us who are able to look back upon our work made a few years ago can see that great improvements have been made, and those of us who are still in active business know that we have got to meet this progress or step aside and back, and sometimes out.

There are cases, however, where some have stood still, and still hold on; it is the general rule, however, that those who are farthest in advance are not those who were in that position twenty-six years ago or more, but that the progress has been largely made, by the younger disciples of the art.

There are many reasons for this, and among them the fact that the best photographers of to-day are mainly those who were never drilled or trained in any other vocation, and therefore have no set habits in other directions to retard them. Again, those who have worked their way along in the art for many years find it difficult to change their methods, and ways, and means, and in many cases, as is the fact with men of all professions, on arriving at a certain age, lose their ambition and ability to progress, and hence must stand still in their ruts, while their more youthful competitors go ahead and gather the richest harvest.

Yet with all this progress and growth, an evil has risen among us which still seems to grow. Every person who has had experience in conducting a large establishment for the production of any class of articles, knows the advantage of dividing the labor among specialists and experts, who have been trained to do certain parts of the labor and nothing else. For example, we go into a manufactory of silver-plated ware, and we find those who are making moulds, others preparing the melted metal, others who cast the metal into the moulds, others who turn, and shape, and fit, and dip, and burnish, and polish, etc., etc., each doing his special branch, until the finished ware is offered for sale to the public.

So, too, in large photographic establishments—for example, in that of the Centennial Photographic Company of last year, where over two hundred operatives were at one time employed—were men who devoted themselves to the various stages of the art, from cleaning the glass to burnishing and finishing the print, the best help

possible being obtained for the varied stages of picture-making.

The fact that large establishments do divide their labor in the way described, has induced parties about taking up the photographic art as a livelihood, to devote themselves very often to special branches. We have not a word to say against this thing by itself; we believe, as we have often said before, that the best way for large establishments to do is to encourage operatives to devote themselves to some special department of the work. But what we have to comment upon is the fact that this thing has been done too literally. It is right for a man to make himself perfect as a printer, or toner, or a darkroom man, or as a poser. but too much of this has been done without the possession and addition of a thorough knowledge of every branch of the art, which is in part essential to the perfect performance of the duties of any special branch, and the true expert in any one department should be careful, if he would excel in any one department, to have a thorough knowledge, theoretically at least, of all the other departments in photography. Nay, he should go further; he should understand the chemistry and the art principles entailed in the production of photographic pictures.

How often do we hear a draughtsman complain of his best feeling and efforts being utterly destroyed by his engraver. As frequently do we hear the operator who poses and lights the picture complain of his assistant in the darkroom, because the latter seems to have no ability to understand the method of lighting followed by his chief, or that it is necessary to vary his developer, and system of coating the plates, and the quality of his collodion, etc., according to the change of light and the style of subject presented. And so do we continually hear both parties named grumbling and fretting because the printer fails to obtain from their negatives the results which they know are obtainable, simply because the latter does not know how to distinguish the quality of one negative from another.

This evil we have had unusual opportunity to observe during the past year or so. We have not only met with much per-

sonal loss on account of it, but have been led to bring the matter in this way before photographers.

Besides the advantage given an expert in one branch of our work, of being able to excel in his department, the thorough knowledge of all branches makes him infinitely more independent than he otherwise would be. As evidence of this, we will state a case in point. We had in our employ last year several young men who were very excellent and very skilful printers; we had others who were unrivalled as darkroom men, and some who ranked among the highest as toners. When the time came when it was necessary for them to seek other situations, many of them were -on account of the present hard times and consequent difficulty in obtaining situations as experts in special branches-forced to be idle because they were unable to take up other branches, or in fact all branches, and work them. Some of them, for the first time in their lives, saw the disadvantage of devoting their time to one branch of the art, and have wisely posted themselves on the others, so that when the opportunities are offered them again, which we know have been offered, to make themselves generally useful about a gallery, they will be the very best persons to fill such positions.

We have been amused sometimes, when advertisements have been placed in our magazine for first-class operators, at the number who, assuming to be such, would answer the advertisement; but when they were questioned as to their ability to oversee the general work of a small establishment, how few there were who were able to fill the bill.

Again, many persons who are now working as assistants, hope some day to be able to embark in a little business for themselves; and again comes in the advantage of being posted on all branches. We might expatiate still more largely upon the advantage it would be to the proprietor of an establishment to give preference to men who, while they excel in some special branch, are well posted on all; for if there is one principle in photography which should come next to cleanliness, it is that of harmony. From the posing of the subject in a specially

arranged light to the toning of the picture, there should be harmony of action throughout, and everything made to bend to the nature of the subject just as exactingly as the operator moulds the light to suit it.

Now the question will come up from these thousands of specialists, How are we to train ourselves as you propose? Let us see if we can suggest how. There are but few of you who have not, during each day, more or less time when you are not busy at your particular work, but could improve these hours in watching the experts in the other branches, if possible obtaining permission to practice with your own hands; be generous, and volunteer to help do the work, doing anything that is right and honorable for the sake of good information. We have known steam-boilers to explode because of too much pressure upon their strength, and there are men whose minds have been turned by too much knowledge, but history has never given us the record of any photographer ever having become insane because of an overflow of information.

This sort of habit followed up will soon open your eyes wonderfully, and not only inform you upon all matters pertaining to your art, but will assist you largely in the better performance of your own special work.

Your next instalment of spare time should be employed in studying the best authorities upon the subject of photography. In this way you obtain the theory, which will bubble up as you require it in your practice. Not only do we mean that you should read photographic works, such as Dr. Vogel's excellent Handbook of Photography, but you will also need to read Burnett on Posing, and art works, and works of chemistry, such as Pepper's Cyclopædic Science, which we have before recommended to our readers, and when you read, understand what reading means-not the mere skimming over of page after page and volume after volume, but of thinking over and understanding what you read. One good way of doing. this is when you are reading, to mentally go over the formulas from beginning to end. For example, if you are a printer, and wish to understand something about collodion, read the formula, and then you will go over

the process of weighing out the chemicals, of measuring the ingredients, and of testing them after mixture, and you will find it a wonderfully fine way of memorizing such things.

Another very essential way of obtaining information is to study the work of others. We lately read an account of the life of Mr. George Augustus Sala, the celebrated. English writer and newspaper expert, whose rapidly flying pen has furnished the great city of London reading matter for many a day, and with it the subject of conversation during the day. We find he gives some very interesting suggestions to those who hanker after a newspaper life, which he regards as essential for the journalistic profession, some of which are sound and some are not. There is one thing, however, which Mr. Sala says has long been his practice, namely, in the morning before proceeding with his work, he would study the files of older newspapers or read a passage from Milton or some other good writer, in order to supply his mind with a fund of words and expressions such as would come to his help in doing the work of the day. And so may the ambitious photographer, before he commences his day's work, pick up a number of samples, or the illustrations in our magazine if he has no other, or such as he may obtain, and examine their defects and merits thoroughly. In this way he would fill himself with ideas which would be useful to him all day.

For the advantage of those who may not know just how to take hold of this sort of drill, let us bring to their minds an example, and we will take up for our purpose a picture which hangs upon our wall near where we write, from the studio of M. Salomon, the eminent Paris photographer. poser of a subject, we must admire the way in which M. Salomon has arranged the figure. The subject is a gentleman seated upon a chair with a high back, where a head-rest was impossible; the utmost attention is given to the arrangement of the drapery; the left arm is supported upon the arm of the chair, with the hand up to the face, and a cushion under the elbow and upper arm. The lines of this arm are balanced exactly by the other arm, which is allowed to lie against the body with the hand in repose upon the right leg, which latter is pushed forward at a very slight angle, while the other leg is made to reverse the action by being lifted up, the upper at an angle with the lower part; the latter helps to create a fine example of diagonal composition.

The draping of the coat is arranged so that the two sides balance, the lines being as nearly alike on each side as possible. The background is graded from one side to the other by a curtain and by the painted background itself. The light is soft, and yet strong enough to give emphasis to the white of the shirt bosom and wristbands, and a glow almost like a nimbus about the forehead of the subject, and gradually decreasing downwards. The uplifted hand is made to catch the light most artistically, and contrasts finely with the reclining hand, which is most carefully posed, and relieved by the other wristband. The effect is to give a round living figure, an easy pose and a most natural likeness.

As a negative-maker and darkroom man, we see much to find fault with. The negative is rather flat and thin, and the manipulation has been dirty and rather slovenly, as the spots, which have been touched out carefully, show. The bath has been an old one and full of pinholes, and has, perhaps, not often been visited by the photographic physician. As a printer, we find much to excite our admiration, and if we are capable of judging of negatives as well as of making prints from them, we know how hard an operation it must have been to have printed and toned such an exquisite print as this is from such a negative. The tone is of the warm chocolate color; the gradations and modulations in the negative are exquis-There is scarcely an initely preserved. tensely black shadow in the whole print, and a mysterious beauty about the whole effect, which printers all know is very hard to produce even with the best of negatives, and yet here our printer brother has shown us what admirable results can be obtained from a bad negative, and how much more exquisite the results would have been, if possible, than this is, if there had been more harmony of action between him and the darkroom man; but he shows, also, his skill as a champion printer, for such he evidently is.

Thus the would-be perfectionist in photography in all its branches and mysteries can give unto himself object-lessons which will be of infinite value to him in his daily work, and just as Mr. Sala tells us, that the imbibing of passages from Milton or other writers supplies him with the word-power which keeps his intellect fully running during the whole of the coming day, so can the photographer, by the study of the works of others, or even sometimes his own, supply himself with a power which will wonderfully improve the pictures and make his work easier during the day before him. We still long for the time when we shall have in this country an institution where photographers may go and perfect themselves in all the varied branches of their art. Such an institution ought to be well supported, and we still hope that the time may not be far distant when some person or persons will have the vim to give it a start forward, and when they do, there will be others who will come themselves and send those in whose future success they are interested, to help support the enterprise.

# Excursion of the Photographic Society of Philadelphia.

For several years the members of this Society have arranged a number of photographic excursions to various points of interest in the vicinity of Philadelphia. The first was a visit to Onoko Glen on the Lehigh, followed by a trip over the Pennsylvania Railroad to Altoona, and several excursions in a tug-boat up and down the Delaware River.

All of these outdoor meetings were very enjoyable, but there was one serious fault to be found with them, which was the rapidity with which the party was moved from one locality to another. On the railroad, although travelling upon a special train, many points of interest had to be passed over for the reason that it was impossible to find a siding exactly at the right spot, and the train could not obstruct the main track for a sufficient time to make the

desired pictures. On the tug-boat trips, finding a landing was often a great annovance, and the party were carried far away from the place selected before it was possible to get on shore. All the members agreed that an expedition upon the water was the most enjoyable, and it was finally determined to have the June outdoor meeting upon one of the lines of canal, not too far distant from the starting-point. much discussion, the Susquehanna and Tidewater Canal was selected for the trip. The members of the Society and their friends were invited by the Committee of Arrangements to meet at the depot of the Pennsylvania Railroad, on Wednesday, June 13th, at 4 P.M., prepared for three days' work. As one after another the members assembled at the hour named, carrying every variety of odd-looking packages, the regular passengers upon the train looked out of the car windows with astonishment, wondering no doubt what event had brought such a strangely equipped party together. There was uniformity in one respect only; each man carried a tripod, but there the similarity ended, for none of the camera-boxes were of the same size or form of construction. At last all the party, together with an endless number of packages of provisions, was safely deposited in the train, and off we started for Columbia, a town situated on the Susquehanna River, at which place the canal-boat had been ordered to meet the excursion. The party consisted of Messrs. Bates, Barrington, Dixon, Partridge, Seiler, Zentmayer, Sartain, Corlies, Pancoast, McCollin, Gilbert, Hacker, and Browne. All prepared for dry work except Barrington, who used wet plates almost entirely.

It was the original intention to have had the party sleep upon the boat, and be independent of hotels, but as there were not sufficient accommodations on board for that purpose, it was necessary to arrange the stops at night, so that sleeping accommodations could be found on shore.

An early start was made next morning from Columbia, in a trim-looking and very comfortable little barge, kindly provided by Mr. T. C. Zulick, President of the Union Canal Company. We here made the ac-

quaintance of Mr. D. F. Shure, the Superintendent of the Susquehanna and Tidewater Canal, who remained with us during the entire trip, and added much to the pleasure of the expedition by a full description of the country through which we passed.

Leaving Columbia, the boat was towed across the river and at once entered the A fine team of three mules was attached to the light boat, and we rapidly descended through its placid water, stopping every few miles to pass through a lock or to expose some dry plates. It is seldom now that a traveller can enjoy the delights of a canal-boat ride. Steam has practically done away with all such slow means of conveyance, except for heavy merchandise, and passengers are whirled along in swiftmoving cars, with little chance to observe the beauties of nature. In our comfortable barge we moved along at about three miles an hour, stopping everywhere that we wished for a shot at some charming bit of foliage or overhanging rock. Some of the party preferred to walk along the bank of the canal, hunting for picturesque studies for the camera, rather than the more rapid movement of the boat; no danger of being left behind, for the absent members were certain to come up at the next lock.

It was the favorite occupation of the members to assemble upon the upper deck of the boat and witness the ever-changing character of the scenery. Often sailing for miles with the branches of trees almost sweeping the deck, then passing under perpendicular cliffs of great height, then coming to a more open country, giving unobstructed view up and down the Susquehanna. At one point, high over head, we noticed an eagle's nest, but the birds had long ago departed, leaving their abode as if it had been but lately occupied.

Several of the members preferred the coolness and shade of the cabin, where they amused themselves by placing several cameras with uncovered lenses pointed out of the windows upon the passing scenery. The day was bright, with not a breath to move the foliage; every leaf and tree trunk was distinctly marked in brilliant colors on the ground-glass. The images depicted

were most charming, but alas! the beautiful visions fled away as rapidly as they appeared, giving place to other pictures equally interesting. Hours were spent in watching this lovely panorama, until our eyes ached with the strain, but the experience was novel and interesting.

As evening drew near we stopped at McCall's Ferry, about eighteen miles from Columbia, where we spent the night. fishermen of the party then commenced operations, and in a short time provided enough fish for the breakfast-table next day. The following morning we started off quite early to photograph a mill, which was described as "very old" and having an overshot wheel forty feet high. account we had heard was so attractive that we were led to expect a great deal, but the reality was not exactly what we could have wished,—the building being a wooden sawmill of recent construction, almost covered with trees, having nothing to recommend it to our attention but the huge wheel, which towered above the branches, giving an opportunity to make a picture of it, which was taken advantage of by several of the party. During the day about one hundred exposures were made upon every object of interest along the canal and river-bank. Many of the views along the canal were of great beauty, and well suited for reproduction in the camera. While we were leisurely floating down one of the long levels where the scenery was rather tame, Mr. Zentmayer called the members together, and made the startling announcement that he was prepared to present to the Society a compound lens having an angle of about 360°. Being asked for an explanation, he produced a large dragon-fly that he had just caught, whose eyes were composed of lenses having the wonderful angle mentioned. His remarks were greeted with shouts of applause, and the thanks of the Society presented to him, with a unanimous request to adapt the principle in the manufacture of a new photographic lens, to be called the Dragon's-Eye Objective.

The members were at first much agitated by the thought that perhaps in a month all of their Ross, Dallmeyer, Zentmayer, Mor-

rison, and other lenses would be worthless, and be only fit to cut up into tiny pieces, out of which to construct the new objective, and a disposition was shown to smash them, then and there, by one of the party knocking several of the cameras upon the floor. But after viewing the wreck a more quiet feeling was manifested, and it was agreed to defer the general smash until the new objective was properly introduced into the market. In fact, were all the amusing incidents that occurred upon the trip included in this paper, the writer is well satisfied that one entire number of the Philadelphia Photographer would be required to contain an account of them, and he is equally assured that no one would read the journal when it was printed.

Towards evening the boat arrived at the residence of Mr. Shure, where the entire party were the recipients of his kind hospitality. Upon every excursion party with which it has been my luck to be associated, there are some individuals who cannot sleep after the sun has appeared above the horizon; or, according to the almanac, should make his appearance. Although the next morning was cloudy, with strong indications of rain, five o'clock saw many of the party grouped about the house, waiting for enough light to commence work. It is not to be regretted, upon principle, that a number of dry plates exposed before 6 A.M. on that day proved to be undertimed.

At eight o'clock, rain commenced to fall, and continued until two in the afternoon. It might be supposed that rain would effectually dampen the ardor of the members. Such was not the case. Breakfast was eaten, all the party collected on board, and off we go, eagerly on the look-out for new subjects. Mattock's Mill, opposite Port Deposit, of which we had heard glowing descriptions, soon appeared in a bend of the canal, and its immense overshot wheel was too great an attraction to be resisted. mill was literally surrounded with cameras, and notwithstanding the rain, the venerable building was safely packed away in a dozen photographic gamebags, to be brought to life again by the magic power of development, days or weeks afterwards. leaving the mill the rain came down so fast

that no more work could be attempted until the boat arrived at a bold mass of rocks named Temple Point. As this locality was close to Havre de Grace, and the last point at which any picture could be made, the members became somewhat reckless, with a desire to expose all the remaining sensitive plates. The scene that followed was not unlike the close of a celebration of the Fourth of July, when but a few packs of fire-crackers remained unexploded, and nothing was wanting but the noise of each discharge to complete the simile. But it is not to be taken for granted that this fusilade of photographic artillery ended in smoke. For we feel satisfied that Temple Point and its surroundings will appear with the other pictures, and give a proper ending to the scrap-book belonging to the Society.

At this place, Mr. Shure, who had devoted his entire time to the excursion party, left us, and in saying good-bye we felt that the guardian angel of the canal had left us to our fate. His commands had been the open sesame to all the locks that barred our path, and his kind efforts had brought us through without accident or delay. Our gratitude found vent in an expression of feeling that was unmistakably sincere. A few miles more of canal experience, and our barge arrived at Havre de Grace; where all the impedimenta were transferred to the Philadelphia, Wilmington and Baltimore Railroad, and the party arrived safely at home about 7 P.M.

Over two weeks have passed since the Photographic Society returned from their June excursion, all the dry plates have been developed, and it can be said with satisfaction that a large portion of the results are good. With the exception of some cases of underexposure, no serious difficulty was met with in the development. The loss of negatives to those of the party who uniformly gave long exposures was not worth considering.

Young's Philadelphia washed emulsion, stained, was used by all except Mr. Barrington, who exposed coffee dry plates, together with wet collodion; and Mr. Partridge, who used emulsion prepared by himself.

At the next meeting of the Photographic Society prints from all the negatives are promised. This exhibition, it is hoped, may prove both instructive and entertaining to the members, and keep before their eyes an illustrated history of the excursion.

B. C. J.

### Some Things Seen and Smelled.

BY I. B. WEBSTER.

It was like, as it were, "a great light from the East" the July number came in among us this A.M. I do not know as it was much behind time, and yet it did seem a long time coming. I can only account for this upon the hypothesis of my having had such a long and severe sickness, and upon the very "thin diet" I had subsisted upon, as one only can get from the other photographic journals. I read and re-read, and read them over again, and lay them down dissatisfied and weary. I began to think that I had lost all taste for photographic literature, until the advent of this particular number came to hand, when "Presto! change!" all my old love for it returned, and I was soon lost in photographic matters very interesting to me. I do not write this to "tickle you" particularly, but in saying that I consider this one of the best numbers you ever issued, I speak the honest convictions of my heart, and yet I am asking to learn why you did not insert the matter (printed) of the circular upon which my comments were written. The point was lost except to a few of us. However, you ought, and no doubt do, know best, so I will leave it at the query.

I have had opportunities lately for visiting other galleries and looking at the display made, both at the door and in their reception-rooms, and have been forcibly struck with the faded-out appearance presented by all the work, both indoors and outdoors, but more especially the latter. I have these pages bound in good style for the years 1866-7-8-9-70-1-2. In looking over the two first mentioned a day or two ago, my heart was grieved to see such strong evidences of decay. The negatives are beautiful and permanent, but the print, that which we want to preserve, is fading from our view. This is not true of all of them. In fact nearly all of them are as good as when first made. As has been truly stated recently by some writer, "Just at present there appears to be considerable discussion upon the subject of photographs fading," and it is time that such discussions were had, and that a solution of the difficulty was had, and that preventives should be employed. There are many photographic gems in existence, that were they to fade, or what is worse, become unpleasantly yellow, would nearly discourage the proprietor of them from ever again investing in so "fragile a thing." Photography must go down as a business, unless more pains are taken in the production of the prints. This is not said to discourage. On the contrary, it is intended to suggest thought upon the toning, mounting, and finishing the photograph. Let the printer start out right and avoid the use of papers that give off such powerful odors. I stepped up into an operating-room the other day, and the first thing observed was a very unpleasant smell. What it was I could not for a long time determine. Finally I raised a curtain, peeped in a little (just a very little) way, and pulled back immediately. I not only saw, but smelled out, the cause of the stench. What was it, do you say? Why nothing but the room in which the paper was silvered. I saw only three or four sheets of paper, but I am sure I smelled at least one dozen rotten eggs. Now, can good, permanent silver prints be made on a. "rotten egg" surface? I do not believe it can. How are we to prevent the egg from rotting, unless we albumenize our own paper? I see no other way of getting fresh albumen paper here, or at other places remote from the albumenizers. I have upon several occasions introduced the subject of albumenizing, but no one seems to feel enough interest in the subject to enlighten us. therefore come out again, and call upon the albumenizer to answer as to his ability to supply the fraternity with good, sweet albumen paper, also as to his opinion of the stability of prints made upon discolored and "rotten egg" (judging by the smell) surface. I hope others will say a word or two upon this subject.

In my next I hope to touch up a little upon the prints in the *Philadelphia Photographer*, taking them in detail.

### Cleaning the Daguerreotype.

BY W. L. SHOEMAKER.

It certainly is a matter of vain regret that one feels on removing a daguerreotype from its case, that a specimen that represents such a wenderful era in the graphic art should be subjected to ruthless handling by many professionals of the present.

We have had pictures of every kind brought to us for copying, and I find the daguerreotype the worst abused of all.

Although never having followed the art of daguerreotypy, having become apprenticed at the time of its decline (1859) in this city, still I appreciate and admire the wonderful results that often pass through my hands, and to see a picture without being sealed, no preserver, dusty, finger-marked, is enough to make one swear.

A photographer in the West, for whom we have done a great deal of copying, sent us a package, consisting of a large number of daguerreotypes and ambrotypes. Each were taken from their cases, their mats, glass, and preservers removed, each wrapped in a little piece of tissue-paper, the whole enclosed in a paper box; when received the ambrotypes were broken to flinders, and I had to practice the mosaic art to repair damages; the daguerreotypes scratched to destruction. I am not a practical swearer, or I should have tried my hand at it on that occasion.

About three years ago, two frames of daguerreotypes, each containing about (100) one hundred one-sixth size pictures were sent to us to clean and replace.

These pictures were placed in a velvet matt without sealing; the action of the gases of the atmosphere had obliterated most of the pictures, and they were unrecognizable.

To clean them and replace in the matt would have been easier than any other method, but I desired to make them a permanent thing if I could, and tried the following experiment: first removing, brushing of all loose particles, then immersing in a dish of hot water: this removed all gum from sticking paper on back, and softened the coating on surface quickly, so that on laying in a dish of weak cyanide, they cleaned nicely; after washing well, I poured over

the surface raw albumen, gave a slight rinse under a small flow of water, then set up to dry spontaneously. After thorough drying each were placed in a dish of alcohol for a few minutes; this caused the albumen to be made insoluble, or, in other words, cooked it.

If the albumen is moist in the least degree when placed in the alcohol, the surface will dry opaque, and trouble will be given to remove it, but if the surface albumen is thoroughly dry it will remain transparent, dry spontaneously.

This method I found left a good coating on the surface, and could be rubbed quite hard without marking.

I hesitated making this public at that time, as I desired to wait and see if they returned to their original condition, but on examining them a few weeks since, I find them all good yet, no change having taken place. I felt doubtful myself at the time, for all who have cleaned daguerreotypes, although they may have sealed them properly when putting them up, will know that a picture once cleaned is more liable to change than ever, if not very carefully washed.

My object in occupying your valuable space is not to intrude advice, but rather to relate my experience in the above case, as I aided in the preservation of a number of pictures not valuable in themselves, but for their association, as they represent a body of men, very few of whom are among the living, and were greatly appreciated by their owners.

### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 201.)

I have been making a blunder. I have taken you into the printing-room before I have explained how the negatives were prepared to get there, after they were turned over from the operator's care. To simply say that they were varnished, is not to tell the whole story. Some were doctored! Put through a course of photographic surgery. I now refer more particularly to the most

popular class of the productions—"Statuary."

There might be quite a good-sized volume written in regard to the photographing of those marbles. Now that it is all over, I have my own little secret laugh at my comical experiences. To give a partial explanation, for I won't give the whole of it, I will say that certain parties, generally *Italians*, calling themselves either artists or agents, had the care of these figures.

They made arrangements with the "Company" for the production and sale of photographs of attractive subjects.

Some of the aforesaid "artists and agents" had desirable models, others did not. Naturally, jealousies soon came into birth, and those who had little to represent them, or may be, more properly, who had little to represent, began to give us trouble and seriously impede our workings.

This opposition was carried to such an extent, that toward the closing of the Exposition, we were not allowed to work in the Art Galleries after half-past eight o'clock A.M. Now, gentlemen, those of you who are disposed to do so, and who most certainly do indulge in the habit of criticism, bear this fact in mind.

Messrs. Wilson and Adams paid large amounts of money for the privilege of making pictures of some desirable figures. The commissions were, of course, transferred to us who operated. There was no opportunity to move those heavy stones from place to place, and having to work almost at the dawn of day, there was surely not much chance to choose the light. If people, those who pick up a picture, and give it sometimes an adverse criticism, were to know anything of the difficulties under which it had been made, they would be, at least, more lenient in their expressions.

Many are the wordy fights that I have had with those "Sons of fair Italy." A disinterested American or English observer would have supposed on some occasions that assassination was imminent. I know the character of the people much better. "Bluster and gesticulation" are sufficiently expressive terms to give character to their actions.

If you feel at all like myself, you will ex-

cuse the inclination I evince to get out of the hard-trodden path of photographic literature.

Formulæ are being constantly printed and reprinted, that are as old as the art itself. Reports of scientific investigations about peculiar properties of rays of light and certain characteristics of subtle chemical compounds (never used by the average photographer) consume as much space as I demand for my R R's.

Picking up my third R., and Resuming, I must tell you of our method of varnishing and preparing negatives for printing purposes.

Since our time for operating upon the statues was reduced to such a minimum, and since we required so many negatives of some of them; we used to put all of our available force at the work, and during a clear morning, an outsider, dropping into one of the Art Galleries, might have been excused for supposing it to be a photographic stock depot. There were certainly, on many occasions, more instruments than there were models. It was often the case that five cameras would be pointing towards the one subject. As some of these would have four lenses glaring from their fronts, you can readily imagine that a good many negatives were made, even although the circumstances were adverse. It was no unusual sight to see twenty or more instruments being worked simultaneously in one apartment.

It seems to have become the favored style to have photographs of statuary prepared with an intensely black background. That I, myself, do not give sanction to it, is of very little consequence. I was obliged to accept the idea and aid in its practical production.

At first, when there was plenty of time, and when one was allowed the privilege of a full day's work, it was the custom to erect temporary backgrounds, or screens made of very heavy very dark-green baize. The contrast between the whites of the marble and the heavy color of the drapery were sufficiently great to give a transparent film in the rear of the figure.

When we had to rush matters, pop away with all the instruments in our possession, it became impracticable to put up these

backgrounds. It would have required as extensive a supply of material as any of the cycloramas demand. Other methods had to be adopted. The most efficacious was to scratch away the background, leaving a bare glass surface, before varnishing the negative. To do this, a considerable amount of care, and some skill, as well, is required in following around the outlines of the subject. The major portion can be quite readily removed with a piece of chamois skin, moistened with alcohol and ether, or even with alcohol only.

I originated a style of picture adapted to the reproduction of statuary, the making of which, I am sorry to see, has not been more vigorously prosecuted. The invention consisted in printing upon the finished albumen print a lithographic background. My design was to secure, or rather retain, all of the delicacy of the silver impression, and then to enhance its value by the contrast of either a flat, or, as the artists term it, a dead surface, or otherwise an imitation of drapery in subdued colors. Even a flat gold, silvered, or bronzed relief could be obtained.

The process is only suitable for such establishments as that of the "Centennial Photographic Company's," where immense amounts of prints from each negative are made.

To consummate it, a good deal of detail has to be entered into. No matter how closely they resemble each other, the prints from different negatives have to be kept scrupulously separated. Then again they have to be printed with register marks, in order to guide the lithographer in his work. One other drawback I acknowledge, is the tendency of albumen paper to either expand or contract in the most unexpected manner. One never knows, in the case of a large picture, whether a face will be made an eighth, aye, even a quarter, of an inch longer or broader than he intended it to be. At the last meeting of the members of the National Photographic Association, Mr. W. Curtis Taylor gave quite an interesting discourse upon this subject, and his remarks were responded to by a desultory discussion. As I remember it, the only conclusion arrived at was that sometimes paper would contract, and at others it would expand, and that generally it would do so in directions contrary to your desires. The whole argument was closed by laying the interesting specimens with which he illustrated his lecture (photographs of Dom Pedro) and the discussion generally, in parliamentary phrase, "upon the table." The only practical part of the whole affair consisted in the leaving of the pictures to the disposal of the Association.

Resuming again (I am fond of the letter R.), I will remark that this pet style of picture, which I most certainly claim to be an origination of my own, has been basely imitated. Passing along our leading street in this Quaker town, and adhering to the custom which I acquired in childhood, of looking into every window that contained a picture, I discovered a good many representations of all kinds of differently proportioned Venuses, Apollos, Cupids and Psyches that were gotten up on about the same principle. In these instances, however, the picture itself, that is, of the statue, had been carefully cut out from its surroundings, probably with seissors, maybe with a "Robinson Trimmer," and pasted upon a black or chocolate-colored cardboard. Although furiously indignant (?) at such an innovation upon that which I claimed to have been an original design, I will acknowledge the effects to be good.

It is in place here to advert to some pictures that the most of you must have seen, because they were on exhibition in Photographic Hall during the Centennial season. They were also copies of marble and plaster work, mostly of basso-relievos. I believe that the manner of their production has become the origin of another patent. Looking them over I found that the photograph of a statue was carefully cut out and sealed to a glass. Then the plate was silvered in such a way as to represent a mirror. Putting the affair into the plainest words that I can use, the result seemed to be the combination of a photograph and looking-glass. I liked them so well that I was about to . commence making them when I was deterred by that terrible warning against " infringement."

Let us drop the talk about the marbles, or rather the statuary, get back into the orthodox recitation of photographic processes, and consider the varnishing of the negatives. There was a cosy little room dedicated to the purpose. It was surrounded by shelves, and upon these the plates were first placed when brought into the establishment. In one corner there was a veritable closet—no other term would describe the contrivance. It also had shelves. They were made, though, of wire. A gas-stove was placed at the bottom of the cupboard, and when lighted, the heat from it would very soon work its way through the partitions and speedily dry anything placed upon them.

Once dried, the negatives had to be varnished: and now commences the résumé of many a trouble.

Every make of varnish was experimented with. I remember reading at various times during a period of some years, in the English journals devoted to photography, the laments of operators who constantly spoiled their negatives in the varnishing process.

Lately: since I have been again established in business, I have had instances of valuable plates being destroyed by impure coatings.

My preferences incline me to the use of a composition made almost exclusively with alcohol and gum sandarac. A small addition of oil of lavender does no harm. I am not convinced that it does further good than to change the smell of the other composition. Castor oil is claimed to be a valuable ingredient, but I acknowledge that I have not made sufficient experiments upon which to found an opinion.

Without in any way deprecating the manufactured article furnished by the stock houses, I must say that our preferences finally induced the use of a varnish prepared by Mr. Hopkins. I believe that he intended to introduce it to the trade as a staple article, so I have not presumed to ask him for its composition.

If the varnish is good, I don't know that anything especially can be said in regard to the manner of using it. Experience alone teaches one bow to handle a plate, and the workman is no workman after all who depends upon his success on the following up of printed instructions. It is impossible to

flow a plate well that is too hot; it is equally impracticable to coat one that is too cold. You cannot very conveniently gauge the condition of a negative by any thermometrical instrument. You must depend upon your fingers, your sense of touch, as your guide. As I have already intimated, practice and experience are the only rules by which to work.

Sometimes it is advisable, even necessary, to remove a preliminary coating of varnish, and to apply a second. This operation also necessitates a little care, as does everything in connection with the photographic business. A good many methods have been suggested, but I know of none more speedy than to flow the plate with alcohol containing what you might term an *impregnation* of cyanide of potassium.

In doing anything of this kind you have to keep a sharp lookout. I have seen exceptional instances of collodion films having been destroyed and washed away from the plates before a stream of water could counteract the influence of the agents used for cleansing purposes.

The defective ve

The defective varnishing of a negative will create an immense deal of after trouble. If the fluid is not smoothly flowed, the lines occasioned by its irregularity in drying will most certainly show upon the print. If the plate is heated over a spirit-lamp, and through inadvertence, a little conflagration takes place, then spots and blemishes are bound to be the almost irremediable results.

Adverting again more exclusively to the doings of "the Company," I must state that one young gentleman had his time almost exclusively occupied by this varnishing of negatives.

Some days, each one of us who operated would bring in several boxloads. As there were a number of squads of active workers, the aggregated accumulation would occasionally be appalling, at least to any one who desired to make early hours. You must remember that negatives were not "turned over" until almost dusk, and it would never do to allow the work of one day to lay over for completion to the next.

Assuming that the negative had been successfully varnished, and thus secured from

chances of ordinary accident, it still remained for more to be done to it, previous to its consignment to the printing department.

Our ordinary term for this next operation was "the shaping." Retouching was in but little demand, since the major part of the work was of landscape subjects, and the negatives were required to be sufficiently perfect to dispense with it.

The "shaping" was a matter of sufficient importance to justify me in making it the basis of another article.

### SHALL PRICES COME DOWN?

This question is forced upon us by the stringency of the times. For one, I favor holding up prices. If other localities can maintain good prices, I think we can do the same here. The leading galleries throughout the country should set the example, and we of smaller pretensions should try to follow.

Now let every artist in the country give his views on this vital subject. What are the prices which should prevail? And what prices do you obtain?

A full expression from the fraternity may give courage and confidence to many. It may enable many of us to adopt a better course to pursue in the future, to know just how the business is managed and what prices prevail in other sections of the country. Is it expedient in the present depressed condition of the country to lower prices? I think not. What say you, gentlemen of the camera? I wish that a thousand artists from every part of the country would give their prices, that we may each see what others are accomplishing. Then if any of us see that better prices prevail, and the business of the galleries which obtain the better prices is prospered thereby, it may strengthen such as are weak, and stimulate them to obtain better prices.

In the multitude of counsel there is strength. If in the judgment of the united f fraternity the exigencies of the times require a reduction in prices, then let us be governed accordingly, and drop on the

prices all along the line. But as before stated, I for one do not think it expedient to lower prices.

This city has a population of 100,000, and about twenty-five galleries, some of which are very good. L. D. Judkins is a good photographer and has a good gallery, and gets \$5.00 for cards, but I regret to say that at another gallery in the city, owned by him, he hangs out a \$2.00 sign. I believe that no man in the business knows better than does L. D. J. that \$2.00 is not the best thing.

Smith & Dryer have recently opened a very nice gallery, all on the second floor, and are getting \$5.00 for cards, and say they will maintain good prices. Mr. Smith is a new man in the business. Mr. Dryer has been well known as an artist for years, having been one of the government artists at the transit of Venus.

D. R. Clark has one of the best galleries in the city; is making cards at \$4.00, cabinets at \$8.00. Harry Fowler, well known in this city for years, holds firm at \$5.00 for cards. J. H. Dunn has just reopened in a new building; \$3.00 for cards. W. H. Potter has a good gallery; he reduced last winter to \$4.00 for cards. Then there are other galleries; each seems to be vying with the other to get at bottom figures for cards.

Now if my views in this matter meet those of the fraternity generally, and the editor, after a few months of interchange of ideas, a great amount of good may be done.

My individual theory is that amongst galleries which do good work and are kept clean, there should be a uniformity in prices. At least there should be a recognized and established price, below which no artist should feel himself at liberty to go. It is plain that if such were the established rules of the craft, it would be a great benefit to the whole. With a little broader application of this proposition, it becomes equally plain that any system which benefits the whole is likewise a benefit to the individuals who compose the whole.

Therefore, as the beginning of the tally which I have suggested, I offer the following schedule of prices, which now prevail in my gallery, and which have been established during five years.

Cards, 1	doze	n,				\$3	50
44 ]	۱، ، ،	-				5	00
u. d	luplic	ate, p	er d	ozen,		3	00
Cabinet	, 1,					3	00
						6	00
44						10	00
4.6	dup	licate	es, p	er doz	zen,	8	00
4-4, 1,						4	00
4-4, dup	licate	٠,				1	50
8-10, 1,						6	00
8-10, du	plicat	te,				2	00
11x14, 1	ί,					10	00
11x14, d	luplic	ate,	á			5	00
14x17, 1						15	00
14x17, d	luplic	ate,				8	00

JOHN CADWALLADER.

Indianapolis, Ind.

### Photo-Copper-Plate Engraving.

My process is based upon the observation that a copper-plate should be grained in the interior of the sunken parts, but that the surface should be smooth. It matters but little that the bottom of the large hollows, which are to give the deep blacks of the image, should have a larger grain than the small hollows, which are to give the halftones; the tool of the engraver makes an equal grain for all the depths to which it reaches, but it is the more or less widths and depths of the lines which give more or less deep blacks or half-tones of the image.

But the surface untouched by the graver should always be smooth, so as not to retain the ink, which would soil the whites.

This observation everybody can make for themselves; it is not new, and I make no claim thereto. I likewise make no claim for the use of the grains in the interior of the gelatin, but what I do claim, and what morally belongs to me (for I have given this process to the public), is the method of putting in practice the above observation, consisting of a second coating of gelatin, very thin and absolutely without grain, placed on the surface of the first thick coating containing the grain.

This second coating, very thin and with-

out grain, is the all-important part of the process. It is by it that is obtained all the delicacy of the half tones, which otherwise would be heavy and charged with black. In reality, the fine half-tones being represented in the gelatin print by an extremely thin coating of gelatin, almost imperceptible, this coating would not be thick enough to contain and hide the grain, however fine it may be, and the coating being dried, this grain would show itself strongly in relief, and would produce by countermoulding a plate having in the fine halftones hollows much too deep, and which in consequence would give half-tones which, instead of being delicate, would be as strong as the deep half-tones.

It would also be necessary to burnish the whites, as these grains would encroach upon the portions of the plates which are to give the whites.

This is but the theoretical expose of the process, and as in the mode of operating, to put in practice this process in order to obtain fac-similes of images having the greatest delicacy, there are numerous manipulations, some of which have many details, I will now give them with great minuteness.

### PREPARATION OF THE PAPER.

Water, . . 1000 gr. (34 fl. ounces). Gelatin, . . 200 " (63 " " ). Liquid India ink, to give a light tint, 20 " (308 grains). Pumice-stone, finely powdered and passed through a fine cloth, about . 4 " (62 grains).

I must admit that I have always been wrong in putting this powder, without weighing it, in the gelatin, and it has sometimes happened that I have used too much, the consequence being that the grains, too close to each other, stuck together, and the print did not develop itself evenly in the hot water; but those who will use this process, after a few experimental trials will soon ascertain the proper quantity. It is always better to use too little than too much of the powder.

I use in preference the powdered pumicestone, especially because it is light, and remains in suspension for some time in the hot solution of gelatin without falling to the bottom of the coating when the paper is being prepared.

It is with the same object that I use a solution of gelatin at 20 per 100, because the solution is thick, quickly congeals when poured on the paper or plate, and the powder has not the time to descend to the bottom of the coating. This solution of gelatin should not be too warm at the moment of running; just warm enough to spread in an equal coating, and besides it should be aided by quickly inclining the glass or the paper support.

I would here remark that this solution should be previously filtered, notwithstanding the powder it contains, through a line cloth, and in fact I filter twice by flowing the gelatin in the following manner: After the first filtering I keep my warm solution in a bottle in a water-bath. At the moment of flowing it on the plate or paper, I well shake the bottle and then quickly cover the neck with an old cloth, not too close, and I flow my gelatin, thus filtering it a second time. The object of this second filtering is merely to stop in the passage the bubbles that are formed in the gelatin when the solution is agitated. For this operation it is necessary that the gelatin should be rather

If the precautions which I have indicated have been observed, that is to say, if there is no fear that the powder will fall too much to the bottom of the coating, the solution may be poured upon a gelatinizing plate which has been lightly rubbed with ox-gall, which gives a paper having a highly polished surface, and the grain stopped by the plate is surrounded by the gelatin, and is not a relief upon the gelatin when it is dried; but to be still more careful, spread upon the waxed plate a sheet of wet paper, and after having driven away the air-bubbles, flow your solution over it. What you want to make is a gelatinized paper with a thick coating containing grain (or powder), very fine, in sufficient quantity, but without excess, and this grain should be spread as evenly as possible in the thickness of the coating of gelatin.

The first coating with grain is that which forms the interior of the hollows of the copper-plate, and when it is thoroughly dry,

it is kept in that condition to be used when wanted.

When it is to be used it should be sensitized by plunging it for one or two seconds in the following solution, when it has become hardly tepid and still liquid. If it were too hot and if it were allowed to remain too long in the bath, the first coating containing the grain would dissolve, and produce streaks.

Water, . . 500 gr. (16 troy ounces).
Gelatin, . 10 to 15 dr. (154 to 23; grains).
Bichromate of
ammonia, . 15 dr. (231 grains).

The grain paper is plunged in this solution, the gelatinized side uppermost, and a glass agitator is rapidly passed on the surface of the paper, to drive away the airbubbles; it is then withdrawn, taking it by two corners, allowing it to slide, the paper side underneath, upon a gelatinized glass which has been rubbed with ox-gall, so that the paper being gelatinized will separate from the glass after drying.

I have entered rather lengthily into the details of manipulation, but these details are important and should be carried out. I have already explained that the second thin coating, which is absolutely without grain, is indispensable. I would add, moreover, that it dispenses with burnishing the whites, and gives the finest details of the photograph. The very slight wrinkling of the gelatin, which is always caused by the drying and hardening by alcohol of this gelatin before countermoulding with lead, often requires burnishing in those portions which have no pumice-stone grain.

When the paper has received the second coating of gelatin, is sensitized and dried, protected from the light, it is cut rather larger than the cliché, and the gelatinized side placed against the cliché, as in carbon photography. The exposure to the light lasts at least one-third, even one-half, longer if great depths are to be obtained, than would have been necessary for a carbon print.

After exposure it is mounted under water as is done for carbon prints, but instead of albumenized paper or glass it is mounted on a plate of polished steel or copper; it is then placed under a press, allowed to dry, and developed in hot water, in fact it is treated like a carbon print. It is necessary, however, to take much greater care in the washing than if the support were of glass or paper, because gelatin does not adhere to steel or copper as it does to glass or paper, and it is especially in drying that precautions are to be observed, so as to avoid too great a degree of heat, and currents of air which would cause the print to split or detach itself from the support.

I have used a steel or copper plate as a support, so as to countermould this image, either in the hydraulic press with a sheet of lead, as is done in photography, or by means of a rolling-mill, covering the image with a very thick sheet of lead, lined, if necessary, with a sheet of pliant wax, and this last covered with a sheet of zinc. It is passed several times through the rollers, so that the lead should penetrate thoroughly into the least details of the print.

After this countermould of gelatin is obtained, another is made by means of galvanoplasty, which is the printing plate, to be retouched if necessary, and which is inked so that it may offer sufficient resistance in the printing.

DESPAQUIS.

[The above is in connection (see *Philadel-phia Photographer* for July, page 215) with M. Despaquis' former article.—Ed.]

### "IMPRACTICABLE."

WE do not propose in what follows to define the word impracticable, but since we are often compelled to use it, and there seems to be a misapprehension on the subject, we desire to explain what we mean when we employ it. If there had never been any such thing in existence as the flail, and some superannuated Rip Van Winkle came with a flail and claimed to have invented the most practical and serviceable method of threshing wheat and rye in these days of threshing machines, or if "Old Time" should for the first time make his appearance with the scythe, and claim for it the merit of being the most practical method of gathering our crops, we should look upon

both as having escaped from some ancient lunatic asylum, and should certainly be justified in calling their inventions impracticable; for although they would in time approach certain results and do them well, yet, in the present age, when everything must be done speedily and at a minimum cost, and often in great quantities in a given time, anything that will not accomplish this may rightly be considered impracticable. This is true even though the impracticable thing or process may have other advantages, for if it cannot produce with the same degree of speed, or even greater, and for the same expenditure of labor and money, as well as its competitors, it is impracticable, and it is just in this sense that we use the word when we apply it to photographic processes.

We have often been accused of obduracy by certain sanguine advocates of dry-plate working. We once had a correspondent who covered many of our pages with his well-written contributions on these subjects, and would with ease have filled our whole number monthly with the record of his experiments if we had permitted it, and continued willing to pay him a certain sum per page for the matter; but while what he wrote was interesting and seemed plausible, yet the man's own work proved to us very conclusively that his processes were impracticable, and would possibly be so for a long time to come. We incurred his ire, and we fear everlasting displeasure, when we hinted that we could no longer publish such communications, even if they were supplied to us free of charge.

This was several years ago, and dry processes are no more practical now than they were then.

Though we refer to the subject again with some little hesitation, yet we long ago took a similar stand with reference to the carbon process, and long since stated our opinion, which we have not yet changed, that it was impracticable in this country. We do not say in either case that results, and good results, cannot be produced by these processes, for we know to the contrary; what we do say, and what we mean to infer when we say a process is impracticable is, that neither of these methods are so far

practical as to warrant the every-day photographer, who follows the art for his living, to drop the processes which he is now working and take up the others. This is so, because neither of them could be worked with the same certainty and uniformity of results, or at so low an expenditure of time and labor and money.

When we are called upon in our editorial capacity to pass upon a new process we are bound, since we cater to the wants of the photographic profession at large, to look upon all these things with the ordinary photographer's eyes, to measure them by his rule, and govern ourselves accordingly. Many times have we been asked to defend a process which seemed to us to be impracticable, and we have therefore denied sustaining it, and thereupon our neutrality was solicited; but we have never seen our way clear to permit a process of this kind to come to the photographers without our protest. We, no doubt, have erred in judgment occasionally, and perhaps gone against the interests of our constituency, but as a rule we believe that time has proven our predictions so far to be true.

We make this explanation because some of the sanguine parties who are interested in certain agencies and State rights have by some hook or crook produced very fine results by means of their various hobbies, and shaken them under our editorial nose with considerable ferocity, demanding a change in our opinion that such and such a process is impracticable. We are not made of that sort of material, or combination of ingredients, however, which permits us to go into ecstasies over a little wheat from a great deal of chaff, and are not frequently frightened into a change of opinion. We believe that as the editor of a class magazine, such as our own, that we should stand at the door and guard our patrons against anything that we do not think will be to their money advantage to take hold of or invest in. Sometimes some of our patrons hear the noise outside the gate and set aside our warning, but generally at the cost of being badly beaten and victimized Many thousands of dollars have been expended this way in this country, and had the same amount been spent in establishing a photographic institute, where every method could be thoroughly tried before it could possibly reach the fraternity, many of our photographers would have been much the richer to-day. We do not think that such a course as this can possibly stop the "wheels of progress," for every photographer looks upon money-getting as progress directly or indirectly, and we have only written upon the subject now that there may be no misunderstanding hereafter as to what we mean by the word which heads these remarks.

### STUDIES IN ARTISTIC PRINTING.

This is the title of a new work by Mr. Charles W. Hearn, the author of the Practical Printer, intended by no means to take the place of or supersede the Practical Printer, but a work containing six examples of first-class photographic printing in various styles. The prints are from negatives by Messrs. Rocher, Bigelow, Kent, Lamson, and Draper & Husted, and are printed by Mr. Hearn himself at his establishment. The work contains full and compact series of directions for photographic printing in silver, and for the toning and finishing of prints, together with directions for overcoming difficulties and faults. The work, covering twenty-two pages, is very handsomely gotten up, and the prints are made with more care than Mr. Hearn, we fear, sometimes exercises in producing the prints for the pictures for our magazine. The price of the whole is \$3.50, and is for sale by Benerman and Wilson, photographic publishers.

### PHOTOGRAPHIC DUTIES.

BY E. K. HOUGH.

No. V.

MINISTRY OF ART.

(Continued.)

In writing thus about the duties of photography, it has been my object to speak mostly of those duties peculiar to art, and not of those common to all kinds of business. Therefore, I have not spoken regarding the duties of economy, industry, neatness, cheerfulness, politeness, honesty, etc., etc.,

for they are equally duties in every business, and are always the basis of success in that main object for which all business is conducted, i. e., money-making.

Just in so much as any man cultivates these virtues, so great are his chances of permanent success; for they are the basis of character, and it is always character that wins in the long run. Skill combined with unscrupulous shrewdness may win a brilliant temporary success, but skill combined with character wins success permanent and enduring in all professions, and in photography no less than in all others.

There are duties in every business necessary to make it pay; but there are also duties incumbent upon men in business whether it pays or not.

Every business useful to the world and worthily followed ought to pay, for "the laborer is worthy of his hire." The Christian minister while he remains in the ministry is not permitted to preach as he pleases, neither that only which pleases his hearers, but must preach the truth as he understands it, whether it pays or not, and may not even plead ignorance or want of thought, if in his power to learn and to think, he must study, he must strive to understand every truth, and see every means for impressing that truth upon the hearts of his hearers, in short he must be devoted to truth. The artist has a task, more palatable to human nature, perhaps, but scarcely less laborious. His devotion must be to the beautiful. The one principal duty of artistic ministry is to discover and record beauty in all its forms, however mingled with ugliness or disguised by deformity.

Beautiful forms of every kind are so many "thoughts of God," and there is no form so debased, no face so ugly, but there remains something of the beautiful in it, some soft and graceful curve, or some lines of spirit and power, and it is the duty of every artist to discover and record them, when given to his hand.

It is the province of art to elevate and ennoble, never to debase and degrade; therefore the artist must never never make any face or form look more debauched or sickly, more slovenly or loutish, more haggard or vicious, than it really is. The angel of truth may have to record impartially the evil and the good, but the angel of beauty looks only for her own, and her ministers must find and give it prominence wherever it exists.

As I have said, it is the province of art to ennoble. He who can make servant girls' pictures look like queens, has done good service in art, while he who makes queens look like servant girls is guilty of artistic crime.

Yet in photography, queens have often suffered, so queens, remember, are of many kinds, and hold their sovereignty by various titles. There are queens of society by virtue of wit and grace, queens of song by virtue of angelic voices, queens of tragedy by virtue of passionate genius, and queens of nations by inheritance of royal power, yet what a dowdy and scrubby lot they are as described in some phases of our photographic art. Yet the beauty is there, and might be shown, as is proven by the great difference between the poorest and best portraits of them. Yet even in the best the half has not been told, and needs the true artist's eyes to discover, and the master hands to record their highest beauty.

If these great ones get such imperfect rendering, what failure there must be in the homely and the commonplace!

No wonder they complain; and it is just here that the sense of duty must sustain the artist through the dull drudgery and hard labor of commonplace when there is no clearly visible spirit of beauty to animate him.

The same sense of duty sustains the true Christian minister in preaching week after week to the stupid intellects and stony hearts of an average congregation, in the sure consciousness that from these duties well performed, good will result, however little he can trace the issue.

NEW YORK, July 18th, 1877.

### BLISTERS.\*

In our last issue we alluded to the recommendation of a German photographer, to use

\* We have lately heard many complaints about the appearance of blisters. alcohol for the prevention of blisters. This has called forth several other suggestions, among which are the following:

The spirit-bath recommended against the formation of blisters affects, according to my experience, the pictures very badly, changes the tone, increases the difficulty of handling the print. The use of pure alcohol, however, or half alcohol and half water, has an excellent effect; it affects neither the whites nor the paper, and does not change the tone in the least.

Mr. Schaarwachter, of Berlin, has made similar experiences. He also found that a spirit-bath of refined spirit, diluted as well as not, has influenced the tone for the worse, and has produced especially defective whites. We frequently have heard uttered the very probable opinion, that the impurities which the spirit in trade generally contains are the cause of this fault. Mr. Wilde, of Gorlitz, has for a number of years added to his positive bath 30 grammes of alcohol and 30 grammes of ether, and since has complained of no blisters.

The same subject is treated by Mr. Bornitz, of Rewal, as follows: There are known to me two remedies for the prevention of blisters, supposing that the formation takes place during the process of fixing or in the toning bath. The first is an addition of a little alcohol to the fixing-bath; the second is a slight solution, in which the pictures are allowed to remain two to three minutes after toning, and then they are put in the fixing bath.

Mr. Rolloff remembers that according to his experience the pictures treated with alum turn yellow.

Mr. Schaarwachter recommends as a remedy that sometimes will prevent blisters, an addition of ammonia to the fixing-bath; at the same time he expresses himself astonished that the number of subscribers to the Richler's blister-preventing remedy is only very moderate.—Mittheilungen.

"Do BURNISHERS CAUSE THE PRINT TO
FADE?" THIS IS THE TOPIC OF THE TIMES.
--We should like to have the opinion of
our patrons, that we may have more to say
about it hereafter.



DEAR SIR: I notice in Sphynx column of this month's number of your journal, a subscriber asking for more information on the cupro-bromide method of intensifying negatives, published in the June number. I did not think it necessary to more than outline the method of using the formula there given, supposing that any one capable of developing and fixing a negative would know that between the use of each solution a thorough washing of the plate is necessary; but I will now supply the omission.

To make an intense negative of a line engraving, woodcut, etc., use a collodion with very little bromide, develop with ordinary iron solution well acidified, being careful not to carry the development too far, but to have the lines clear glass; fix in cyanide bath, wash thoroughly, place in or flow over solution No. 1 till bleached, wash again thoroughly, then flow over solution No. 2 till the deposit is changed to a deep red, wash again, drain for a few minutes, and flow with solution of gum-water about as thick as collodion.

For half-tone negatives dilute No. 1 with an equal quantity of water, flow over plate until the deposit is gray by reflected light, and wash immediately, then flow with dilute solution Schlippe's salts; the tone changes to an olive-gray. This will do for copies, but for portrait or landscape work I prefer intensifying, when needed, with pyro and silver, or citric acid, iron, and silver.

J. CARBUTT.

PHILADELPHIA, July, 1877.

WE have been experimenting for some time past with printing on wood blocks. We found the best formula in one of your books, but we have seen something we think is better. It is a dry process. No liquid is used until the print is made. Can you

give us a formula for a dry process? if so, please send to us.

BARNES & GLENNEY.

Can any one help them?

WILL Sphynx have the kindness to tell me the cause and remedy of the stains on the inclosed print? They do not show until run through the burnisher.—X.

The above stains alluded to are bright orange, and round and thick. Very curious. Has any one else seen them?

THE poisonous effects of cyanide of potassium, says Joseph Jones, M.D., Professor of Chemistry in the University of Louisiana, can be counteracted as follows:

"If possible, the stomach-pump should be used, and the stomach washed out with a weak solution of green sulphate of iron, which will decompose the poison. A weak solution of chlorine is also beneficial."

### MORE LIGHT.

DEAR SPHYNX: Allured by various writers, as well as several friends, to buy a Pile's silver test-tube as the only reliable test for silver solutions, I at last ordered one, and to my astonishment, as well as loss, it came, and with no directions for use. I looked at it awhile, and "gave it up." I then turned to Mr. Hearn. Of course he would tell us how to use a thing so needful to his department of the art, but not a word; then Dr. Vogel being at hand, I turned to him, but no answer. Now I am just two dollars out of pocket unless you can enlighten me. I don't wonder the thing don't sell. Why don't "Mr. Pile" put a slip of paper in his tube telling us poor ignorant ones how to use it?-H. B. H.

Please answer through journal and oblige H. B. HILLYER,

And, perhaps, hundreds of others.

### SEASONABLE SUGGESTIONS.

BY ROBERT J. CHUTE.

Now is the time to see that chemicals are kept in warm weather condition. Some recommend keeping the bath cool by using ice; this is keeping up the cold weather condition; I do not approve of it. The better way is to reduce the strength of the

bath. If it has been used at forty grains in winter, reduce it to thirty-five or less. It will be much more manageable, and produce better results. With the reduced strength the high temperature is an advantage to the bath rather than otherwise, as its action is correspondingly accelerated.

If anything is to be kept cool, let it be the collodion This is a necessity, though it can usually be accomplished without the use of ice. Place the bottle of collodion in a tank or bucket of water, and the temperature of the collodion will be sufficiently restrained. The developer will also bear reducing in strength, but do not cool it. During the warm weather, as well as all the year round, use a pad of two or three thicknesses of blotting or filtering-paper on which to rest the plate while flowing with collodion, so that the fingers shall not touch it. This is especially necessary with plates larger than whole size, as the fingers will extend under the plate in order to support it, and the result will be the impression of each finger on the negative, caused by their heating the plate.

The prepared glass should also be kept in a cool place free from dust. By observing these precautions there will be little trouble with chemicals during the hot weather.

In albumenizing glass see that it is well washed; do not depend upon the albumen to clean it. Forty ounces of water to one of albumen will give a good coating.

Under the skylight a great deal of patience is required during the heated term. It will hardly do to manipulate a sitter as much as when the temperature is lower. Make up your mind what you are to do, and do it promptly before your subject becomes worried or exhausted. Make a liberal use of palm-leaf fans, and if flies are troublesome, it is well to keep a fan in motion near the sitter during the exposure.

With children it is not best to worry them with repeated trials; if two or three attempts are not successful, send them away, and let them come again at another time.

In the printing department the bath will also bear a reduction of strength, but

unlike the negative bath, it must be kept cool. As printing-rooms are usually near the roof, and on the south side of a building, they are liable to become greatly heated, and the silver bath, partaking of the high temperature, may become entirely unmanageable; that is, the paper will be over-silvered in the shortest time it can be floated, and probably turn brown before it is dry. It is well to treat the positive bath as recommended for collodion, viz., place the bottle containing it in a tank or bucket of water, when not in use. The temperature of running water, in summer, is low enough for the good working condition of any photographic chemicals. It will be found that different brands of paper will vary more in warm weather than in cold; so if one does not work, try another.

To remove the cork from a bottle secured with wax, heat the wax till soft, then stick it to the under side of a shelf, or lay on it a piece of board kept for the purpose; in a few moments it hardens, and the cork is removed without whittling the wax or breaking your knife in digging out the cork, or spattering bits of wax over your person in hot weather.

# PHOTOGRAPHY THE DISCOVERER OF OXYGEN IN THE SUN.

ONCE in awhile photography is made to play an important part in science, although it is continually looked upon only as a necessary evil. Its latest triumph has been in the hands of Prof. Henry Draper, of New York. He has, by its help, made the discovery that oxygen exists in the sun, which fact has created a new theory of the solar spectrum entirely.

A paper was read on the subject before the American Philosophical Society of this city, on July 20th, by Professor Draper, who demonstrated very clearly by the use of the photographs which he had made, the fact that the coincidence of the bright lines for bands in a photograph of the solar spectrum, with the oxygen lines in a photograph of a spectrum of air, was clearly below, and moreover fully set forth in the ctest. It is difficult for us to explain this hin these pages without the accompanying

photographs themselves, but perhaps some of the remarks of Professor Draper will give to those who are interested on the subject a little more light as to the nature of his discovery. He said, "Oxygen discloses itself by bright lines or bands in the solar spectrum, and does not give dark absorptionlines like the metals. We must therefore change our theory of the solar spectrum, and no longer regard it as a continual spectrum, with certain rays absorbed by a layer of ignited metallic vapors, but as having also bright lines and bands superposed on the background of the continuous spectrum. Such an acceptation not only opens the way to the discovery of others of the non-metals, such as silver, phosphorus, selenine, chlorine, bromine, iodine, fluorine, carbon, etc., but also may account for some of the so-called dark lines, by regarding them at intervals between bright lines. It must be distinctly understood that in speaking of the solar spectrum here, I do not mean the spectrum of any limited area upon the disk or image of the sun, but the spectrum of light from the whole disk. I have not used an image of the sun upon the slit of the spectroscope, but have employed the beam reflected from the flat mirror of the heliostat without any condenser."

The new facts brought to our mind by Professor Draper's discovery are threefold. First, that the solar spectrum has bright lines or bands in it; second, that some of these lines exactly coincide with the oxygen lines which are known to occur in the spectrum of air, produced by the electric spark; and third, that others of those lines or bands probably coincide with the lines of the metalloids, or they may be caused by unknown substances. The discovery of the presence of oxygen in the sun is a new one, although scientists have declared in their theory that it did exist, such theory being based upon terrestrial chemistry, the nebular hypothesis, and the fact that onethird of the crust of the earth, and one-third of the air, and eight-ninths of the water of the globe are made up of that element. Prof. Barker, of the University of Pennsylvania, asserted that in his opinion the discovery of Professor Draper was the most important contribution to solar physics made in

America, and the most important anywhere since the discovery of Kirschoff. With such a willing co-laborer, he has been able to make this discovery, and demonstrate once more the use of our useful art.

### A GOOD EMULSION PROCESS.

Thus we may call a process which, by a commission of the French Photographic Association (Messrs. Ferrier, Jr., and Davanne), has been acknowledged with an award by said society, increased by five hundred francs on the part of the Secretary of Public Education. The programme contained three conditions:

- The preparations delivered to the commission had to keep their sensitiveness at least for two months.
  - 2. Simplicity in application.
- 3. A practical trial made according to the formulas presented must have shown the same results as the preparations mentioned under 1. Consequently the applicants for the award were compelled to work under equal conditions with the plates previously disposed; thereupon the commission repeated the experiments with the preparations delivered, and finally with preparations made by themselves according to the respective formulas. At the first trial there was taken a camera with a simple lens of 30 centimetres focus and 7 millimetres stop. The light was dull and weak. Each applicant himself was allowed to expose, but no longer than ten minutes. In place of those absent, two members of the commission were working. The applicants developed their plates with their own chemicals.

The picture produced by Chardon was so much better than those of his competitors that his method seemed to have absorbed all attention.

Chardon's method is withal nothing but the process with washed emulsion, known long since and applied outside of France, viz., with the difference that he adds a little cinchonin to the alcohol and ether in which the dry emulsion is dissolved, and that glucose is used in the alkaline developer, which seems to produce a stronger picture. The pyroxylin must be of the kind which leaves a residue after dissolving. The best results, it is stated, were gained by that of Dr. Ad.

Martin, precipitated by hot water. quantity must be in proportion to the degree of solubility; it is customary to use it to the same extent as the soluble bromides; however, if it dissolve too easy, more is to be added. The bromides must be applied in afixed proportion, and they will be better dried in advance. The bromide of cadmium contains 25 to 30 per cent. of water. It will be dried over a weak fire until at first it be plastic, then dry, and of the form of powder. The bromide of ammonium must be dried in the same manner by still weaker fire. Then both salts are mixed in proportion to their atomic weights (that of bromide of cadmium being 136, that of bromide of ammonium 97), dissolved in a little water, filtered, and evaporated over a small fire until the composition is dry. In this condition the salt is ready for use.

The bromide of zinc must be dissolved in pure alcohol (that it might part with the oxide of zinc mixed with it); the solution will then be filtered and evaporated in a water-bath, and the remainder dried over an open fire. This preparation, being deliquescent, must always be dried before being weighed for use.

The collodion consists of the following ingredients:

Alcohol, - 200 cub. cent.

Brom. Am.-cadmium, 6 grammes.

Bromide of Zinc, 6 "

Gun-cotton, 6 "

Ether, - 200 "

The collodion must not be filtered, as thereby the proportions might be altered; also the bottle must be kept always perfectly tight. It is advisable to make a sufficient quantity in advance, so that it may settle.

After the collodion has become quite clear, it may be sensitized with nitrate of silver. This can only be carried out in a weak yellow light, not more than 100 to 200 cubic centimetres at a time.

Pulverize clean nitrate of silver (the balance used for weighing must have the sensibility of  $\tau_{100}^{+}$ th of a gramme), and  $\tau_{10}^{+}$ th gramme be put, together with one cubic centimetre distilled water, in a small glass retort, where the mixture will be heated until the nitrate of silver is dis-

solved. Then 15 cubic centimetres of alcohol of 40° will be added, heated again, and this solution poured in small portions into 100 cubic centimetres bromide collodion, while shaking it constantly, and washing the adhering silver solution with fresh alcohol into the collodion. We have now applied to it 30 cubic centimetres alcohol, including the 15 cubic centimetres mentioned above. This mixture has to be shaken frequently, and while continuing doing so, to be kept in the dark for thirtysix hours. Thereupon it must be found out whether there exists a surplus of silver, and if the same is not too extensive.

In order to proceed, one pours two cubic centimetres of the emulsion with 15 cubic centimetres of distilled water, in a testing tube, shakes, and filters repeatedly through a clean Swedish filter, until the filtrate is perfectly clear. A few drops of salt water added to a part of the filtrate must render the solution milky, if the emulsion is supposed to contain the right proportion of silver. A white deposit announces a surplus of silver. The filtering and all following operations may be carried out in daylight, while the bottle with emulsion must always be kept in the dark. If the salt water does not produce a milky appearance of the filtrate, but if a clean solution of nitrate of silver does, a surplus of bromide is the cause. In this case a little of the alcoholic solution of nitrate of silver will render the emulsion all right. However, the results are always better when silver is in abundance. After the surplus of silver is stated, it must be balanced in adding to 100 cubic centimetres of the emulsion, 2 to 3 cubic centimetres of chloride of cobalt collodion, of the following composition:

Thereby the nitrate of silver will be changed into chloride of silver. The surplus of chloride of cobalt must be washed out afterwards, and thus one approaches more and more to the formation of pure bromide of silver.

In the course of one or two hours it must

be tried again to see if there is more surplus of silver, as the process of washing will not take it all out. Besides the bromide of silver and the pyroxyl, the emulsion still contains nitrate of zinc, ammonia, oxide of cadmium, oxide of cobalt, and chloride of cobalt, which must all be separated by washing. For this purpose, the collodion must be poured in small portions into a large quantity of distilled water, stirred, and then the deposit be put on a piece of fine linen cloth stretched over the top of a funnel, where it must be carefully washed until the water flows off clearly. The remainder must then be dried on thick blotting-paper in a darkroom.

In order to prepare a plate, these are taken:

The cinchona is dissolved in alcohol (lately Mr. Chardon prefers quinine), the solution filtered, ether added, and then  $3\frac{1}{2}$  grammes of the dry emulsion mentioned above mixed with it. After some hours, the mixture must be filtered through cotton, and the emulsion is ready for use. The plates are cleaned in the usual manner, rubbed off with asbestos, the edges coated with a rubber solution. After the edges are dry, the plate must be coated slowly with the emulsion, and laid aside for drying. It can also be used wet; it is then more sensitive. These dry plates require about twice as long an exposure as by the wet collodion process.

The developing is carried out with the following solution:

A. Carbonate of Ammonia, . 20 gr.
Bromide of Potassium, . 0.40 gr.
Water, . . . . 1000 gr.

The carbonate of ammonia must be glassy and firm, not at all crumbled, otherwise it is not good for developing.

In developing the plate, its coat must be previously softened with alcohol, which can always be used again; then the alcohol is washed off until the plate loses its greasy appearance. The plate must then be put in a tank and overflowed with a mixture of 100 of A. and 2 to 3 of P. The picture appears quick and clear. When it is sufficiently developed, the strengthener, consisting of the three following solutions, must be added:

- B. Distilled Water, . . . 100 c.c.
  Bromide of Potassium, . 1 gr.
- N. Distilled Water, Soda, as much as it can dissolve.

For 100 parts of the alcohol and developer, must be added 5 parts of B., N., and G. The bromide of potassium keeps the picture clear, the glucose makes it strong. If more glucose should be wanted, it may be added. It is necessary that attention should be paid to the fact that the picture appears stronger when it is dry. After fixing with hyposulphite of soda, the plate must be washed and dried as usual.—Archiv.

### SOCIETY GOSSIP.

THE PHOTOGRAPHIC SOCIETY OF PHILA-DELPHIA.—Stated meeting held Thursday, July 5th, 1877, the President in the chair.

The minutes of the last meeting were read and approved.

On behalf of the Committee on Outdoor Meetings, Mr. Barrington read a report of the canal-boat trip.

On motion of Mr. Corlies, a vote of thanks was tendered the Committee on Arrangements for the efficient manner in which they organized and provided for this trip.

On motion of Dr. Seiler, a committee was appointed by the Chair to procure for the Society a suitable album in which to insert such prints they might select from those taken during the several outdoor meetings, the particulars as to process employed, lens, time of exposure, etc., to be entered on the album adjoining each print, in order that a complete record of the work done by the Society on these occasions might be kept for reference.

The Chair appointed the following gentlemen to serve on this committee: Dr. Seiler, Mr. Pancoast, and Mr. Carbutt.

On motion of Mr. Bates, it was agreed that duplicate prints of the principal objects of interest taken on the canal-boat trip be sent to Mr. T. C. Zulick and Mr. D. F. Shure, through whose courtesy and attention the enjoyment of the trip was very much increased.

Mr. Zentmayer exhibited a very ingenious arrangement for the application of "stop" to the lens, by means of which the sky or any intense highlight in the picture could be very effectually shielded so as to allow the necessary exposure to be given for the deep shadows without injury to the highlights. The mechanism to accomplish this could be applied to any lens, as was demonstrated by Mr. Zentmayer from a model shown by him.

A vote of thanks was tendered Mr. Zentmayer for his communication.

On motion, the Society adjourned in order that the members might have an opportunity of examining the prints made from the negatives taken during the canal-boat trip. A large number of prints were exhibited, all made from negatives taken by the washed emulsion process (with one exception), and the results were considered very satisfactory, especially those by Mr. Partridge, who worked an emulsion of his own make, differing in this respect from the others of the party, who used a commercial preparation.

GEO. W. HEWITT, Recording Secretary, pro tem.

AT a meeting of the Pennsylvania Photographic Association, held June 12th, at Mahan & Keller's, President H. S. Keller in the chair, the Secretary being absent, T. T. Mahan was appointed to act as Secretary for the evening.

Some prints were handed to the Association, one made by T. T. Mahan on albumen paper in 1856, and one by Broadbent, Wenderoth & Co., in 1863, and one by Samuel Cohner, on the Island of Cuba, in 1858 or 1859. The one made by Mr. Cohner was badly faded, while the other two were as good as the day they were made. Although the one made by Broadbent, Wen-

deroth & Co. had not been fixed properly, yet it could not be noticed unless held up to the light. The last print was toned with ten dollars' worth of gold to seventy (70) sheets of paper. The gold is deposited so heavily on the print that it can be peeled off the shadows. That made by T. T. Mahan was toned in the old hypo and gold bath.

Adjourned.

THOS. T. MAHAN,

Secretary, pro tem.

### GERMAN CORRESPONDENCE.

Photogravure and Photochromy — Permanency of Carbon Pictures on Glass—Intensity of Electrical Light—Carbon Printing Process in Summer—War and Photography—How many Photographers are in the World?—How much Chemicals they consume.

Last year I sent you some information about Goupil's process of photogravure, which originally was invented by Woodbury. Recently there was brought in the market a series of printed leaves, prepared after this process, of which some have a size of 22 inches, and which, in general, meet with acknowledgment among artists. beauty they are equal to the old aquatint prints, and, indeed, they may be the most perfect invention so far in the line of photographical copper-plate printing. Goupil has also brought into the market colored prints of this kind, the effect of which is considerably increased by their harmonious colors. About the other French process, photochromy, I can speak, only less favorably. The products of the same are sent to Germany in large quantities, and Mr. Vidal did not hesitate to produce the portrait of the greatest enemy of France, in photochromy, our Emperor William. But the picture looks as if Vidal intended to take revenge in a photochromical way for the political defeat of his native country. As a basis he made use of a photograph by Loescher & Petsch. The color work of this ppicture is done photochrome; but it appears as unnatural as possible, and it is the plainest proof that the assertion Photography en couleurs naturelles is only a humbug.

The pictures of objects of mechanic arts,

produced in the same way, are prettier. In many cases they can be done in a very simple manner by means of the carbon printing process. Mr. Prümm, of this city, has made a picture of a fine sword, gilded and beautifully enchased, by transferring the carbon print on glass, and pasting a piece of gold paper on the back. The picture looked then as if taken on a gilded background.

While I am speaking about the carbon process I will remark that they have tried here several times to introduce to the publie the beautiful window pictures in carbon. Schaarwächter and Richardt exhibited many of them, but without any success; the public prefer decidedly the paper pictures. Hereby I should not conceal the circumstance that the large carbon prints transferred on glass are not always durable. I am not speaking of the fading of the added red coloring stuff which changes the tone of the picture, but of the cracking of the film. All large pictures Schaarwächter produced in this manner are spoiled by cracking of the film, and on some of my own pictures the same fault appeared after a few weeks. I suppose this fault can be prevented by coating the glass, on which the picture shall be transferred, with gelatin; for the Woodburytypes, which are brought in the market in large quantities, show no cracking.

For enlargements, the carbon process is coming more and more in use. The best method of the same is that which I have described some time ago. We have to prepare in the camera, by means of collodion, an enlarged diapositive from the small negative. Then we have to copy a carbon negative, which is to be transferred on glass; and from this we print then the positive picture. To the American photographer this method may seem perhaps too complicated; because for him, with so much bright sunlight, such a circuitous way is not necessary. But for us, with our gray northern sky, having even in summer very often dark days, the case is a different one, and the photographers of enlargements are in search yet for an artificial light fit for use.

In my letter before last, I mentioned my testing experiments of the chemical strength of the electro-magnetic light. Recently I had occasion to test the light of a battery containing fifty of Bunsen's elements. The light appeared very glaring, but the strength was only of inferior value. I had to expose my photometer eleven minutes before it showed fifteen degrees. The same effect I can produce cheaper with one and a half grammes of magnesium wire.

There is at present much discussion about the worth of the carbon process, as I learn by your valuable periodical. I believe myself that the carbon process for small pictures, can never displace the silver process, but gradually will come in use for large pictures. The great difficulty with which at first the process had to labor in warm summertime, is now removed in an easy manner. At the Royal Polytechnical Academy we are proceeding on warm days in the following way:

1st. Prepare a bath: 4 bichromate of potassium, 70 water, 30 alcohol. The same is to be cooled by ice-water.

2d. The carbon tissue is dipped in, back on top, turned over quickly, the liquid moved so that the surface of the sheet will be moistened entirely, and then taken out immediately. During this operation the bath is colored a little black by the paper, but while drying it does not run down even by 90° F. It is to be noticed that the tissue sensitizes quicker in high than in low temperatures, and therefore it needs only to remain in the bath for a short time. The paper is dry after two or three hours.

3d. The copied papers are coated with plain collodion (1 per cent cotton), and dried in a dark place, then transferred by the squeezer (squeegee), and developed. In this manner the work is just as safe as in wintertime. By this process the reticulation and granulation of the film occurs only very seldom.

Speculative photographers have tried to join the Russian or Turkish army, but till now they have not succeeded, on account of mistrust, for fear they could make use of their art for treacherous purposes. In this war, it seems that photography will not perform an essential part, if the Englishmen or Frenchmen are not more successful.

How many photographers are there in the world, and how much chemicals are they using? This question has recently occupied my mind very much. The answer of course is no easy one, and can be given only in part. In Germany the number of established photographers is a little over three thousand; in Austria and Hungary, about the same; and I hardly believe that this number will be exceeded in France or England. For Italy, Spain, Turkey, Sweden, Norway, and Russia, we can count only half the number, which gives the round number of twenty thousand established photographers in Europe. This number may be a low one in comparison with America, where, among forty millions of inhabitants, can be counted six thousand photographers. And in comparison with this number the consumption of albumen paper seems to be inferior. Germany manufactures the main part of it, which amounts to twenty thousand reams yearly. About one-third part is manufactured in other countries, so that to every photographer there is about one ream of paper. the consumption of silver cannot be figured out so readily. In Germany the average use of nitrate of silver is three pounds yearly for each photographer, but in Austria, only one pound yearly. The reason is that there are existing in Germany large reproduction establishments, which Austria cannot show, and which are consuming a large quantity of silver. About the consumption of silver in other countries I could get no sufficient data.

The quantity of Bristol board consumed is an enormous one. In Germany forty millions of Bristol boards, cut into cartes de visite, are used annually. In fact, the photographer is giving out more money for Bristol board than for silver.

Truly yours,

H. VOGEL.

BERLIN.

### OUR PICTURE.

WE introduce our readers this month to the venerable Jotham Shaw, and fancy we hear some one ask, "Who is Jotham Shaw?" We have before us a letter in his handwriting, which we are sorry we cannot produce in fac-simile. It is as follows: PHILADELPHIA, June 5th, 1877.

MESSRS. WILSON & ADAMS.

DEAR SIRS: I am much pleased with the picture you took of me. It is pronounced good by all my friends. I was pleased to visit your magnificent establishment while at the Centennial, last year, and took great pleasure in examining your pictures, a series of which I have obtained

Your most humble servant,

JOTHAM SHAW, Aged ninety-nine years.

All we are able to tell about this venerable old man is what we have gathered from interviews with him from time to time, and during a recent visit to our city. He is a man who has a great fondness for our art, and always submits himself willingly to the embrace of the headrest, and the ordeal of the camera. He naturally loves those things which are old, and adheres to the oldtime costume, as will be seen by our picture this month. His stories of the Revolution are exceedingly interesting, and it seems like reading pages of history to converse with the old man. When he tells us of the days when their mothers melted their pewter plates and table utensils, such as were in use in those good old days, for the purpose of making bullets, and in fact moulded them into bullets while their Jothams, and their Ebenezers, and Jehylemans fought the enemy from front and rear, and when Madam Jotham herself would seize the musket from the hands of her wounded Jotham, and continue the unpleasantness, our blood is thrilled, and patriotism arises to the degree of '76.

Our old friend is very fond of exhibiting the relics which he has of those days, and describes them with childish glee. He could not be induced to exchange these things of the past for the very best product of modern mills and the most improved machinery, and he would utterly scorn the modern mowing machine, preferring to go out himself and help with the scythe and the cradle. Still he condescended to visit our Centennial, and spent some time there, and during his visit sat for several pictures. He is an admirable sitter, both as to keeping still and allowing himself to be moulded by the photographer. We are very glad to have

secured so admirable a subject for our purpose, and no doubt he is the oldest one that we have ever been able to give our readers a picture of.

It was with some reluctance he condescended; the idea of thousands of his pictures being spread throughout the world rather overwhelmed him, and he was made to believe that it was his duty not to interfere with the wheels of progress, and consented.

The parties who made the negatives, Messrs. Wilson & Adams, proprietors of the Centennial Photographic Company, have endeavored to make a good composition picture of him, but used only such accessories as they were permitted by their subject to use, his ideas having been consulted in the matter; they also value the testimony as to the quality of their work from one so venerable, and so much respected by all who know him, and we hope the picture may be acceptable to our readers. As we look upon the pictures of his dear old face, we are reminded of a portion of Carleton's "Uncle Sammy." The first verse says:

"Some were born for great things, Some were born for small, Some, it is not recorded, Why they were born at all."

But we cannot say the last of our dear old friend, who was evidently born for a good purpose, and has served it. Although his hand trembles, and his voice is weak, and his cough distressing, and he totters when he walks, still he may yet see his hundredth birthday, and perhaps several more besides. He certainly possesses not that love for argument which "Uncle Sammy" did, and we cannot say of him as our poet does of Uncle Sammy:

Old Uncle Sammy, one morning,
Laid down on his comfortless bed,
And death and he had a discussion,
And death came out ahead,
And the fact that she failed to start him was
only because he was dead.

The neighbors laid out their old neighbor
With homely, but tenderest art,
And some of the oldest ones faltered
And tearfully stood apart,
For the crusty old man had often unguardedly
shown them his heart.

But on his face an expression
Of quizzical study lay,
As if he were sounding the angel
Who travelled with him that day,
And laying the pipes down slowly for an argument on the way.

And one new fashioned old lady,
Felt called upon to suggest,
That the angel might take Uncle Sammy,
And give him a good night's rest,
And then introduce him to Solomon, and tell
him to do his best.

Rather let us hope that when our old friend is taken away, that, as we think will surely be the case, he will cause regret and sorrow most sincere. We have no doubt we shall all be thankful we have in our possession such a good picture of "Jotham Shaw, aged ninety-nine years."

The negatives were made with a Hemagis Cabinet Lens.

### PHOTOGRAPHIC NEWS.

Messrs. Samuel Peck & Co., New Haven, Conn., have one of the brightest and busiest factories connected with photography. They have just issued a new catalogue of their apparatus and grapho-stereoscopes, which is before us. We were not aware until we looked over this new catalogue what a great variety of goods they manufacture, and we recommend those who deal in such things to send to them for a copy. Mr. W. Irving Adams is the president of the company, a gentleman well known to our readers, and Mr. Carlos Smith is the secretary and treasurer.

ANOTHER new lens is in the market, and was shown at a late meeting of the French Photographic Society, by Mr. Progmouski. His lens seems to be one so constructed that with it one may secure either a wide angle necessary for panoramas, or the limited angle necessary for groups and portraits, and his method is to unite together in pairs the different kinds of glass which he has been able to construct the different lenses from which are embraced in his combination.

MR. JAMES MARTIN, in the *Photographic News*, complains of the number of incompetent assistants who now pester the profession, and considers that the first step to

a better system of initiation must be taken in the institution of a legal term of servitude, to be fulfilled, either as apprentices or pupils. In this way only can masters expect to be repaid for the trouble and expense for their training. This is an old theory with us in America, and we have partially adopted a system of apprenticeship which, with those who have tried it, works very well. We have ourselves tried the system in several cases with the most satisfactory results. We believe, if masters in our art would look upon their youth as the parties who must have the future of our blessed art in their hands, instead of looking upon them as mere drudges, and take pains to train them, that it would result in great

THE PHOTOGRAPHIC EXHIBITION in London is to be opened in October, and held under the auspices of the Photographic Society of London. Mr. H. Baden Pritchard, secretary, may be addressed at the chemical department of the Royal Arsenal, Woolwich, England.

THE French photographic fraternity are taking steps to hold fresh in the memory of that country the beginning of photographic research, by erecting a statue of Nicephore Niepce at Chalons-sur-Saone. The citizens of Chalons have commenced this notable work, and headed the list with the sum of five thousand francs, and they have determined to collect subscriptions from all parts of the world where it is possible. We have not yet the details of their effort, but shall make them known as soon as possible, as there may be some in our own country who would like to contribute to such an enterprise. Photographers owe him a great deal, since he was the first probably who produced photographs from nature, and an opportunity will be given them to pay their debt.

Mr. R. W. Thomas utters the following words of wisdom: "I have always maintained, and a very large experience confirms my view, that in order to obtain the most satisfying results with the nitrate bath, absolute purity, both in the preparation of the silver nitrate and the water used, is a most essential condition."

THE British Journal makes the following sensible remarks with reference to the ma-

nipulation of dry plates: "In development, too, rule of thumb and haphazard are, we fear, too prevalent; one manipulation has the same formula for every class of picture and of exposure; another has no form at all, but dashes on some mixture of some sort to commence with, and waits to see the result, finding, when too late, that the character of the picture is formed beyond alteration, and that character almost invariably a bad one. It is all very well to talk about bad latitude of exposure and developer, they exist certainly, but those who know anything about the matter at all, know that every variation of exposure requires a corresponding change in the mode of development, and brings about a different result." These very happy remarks are true also with reference to almost any manipulation of photography. "Careful and sure" should be the motto of the would-be successful photographer.

THE following is Mr. A. L. Henderson's developer:

Protosulphate of Iron, .		2 drs.
Common Alum,		4 **
Acetic Acid,		2 "
Gum Camphor, broken up in	nto	
small pieces in a bottle,		in excess.
Water,		6 oz.

Should a stronger or weaker solution be used, the alum should be increased or decreased in the same ratio.

As an absolutely reliable remedy against the formation of blisters on albumen paper, Dr. J. Schnauss, recommends, in the *Photographisches Archiv*, to lay the sheet of albumen paper, with the prepared side on a sheet of blotting-paper, and then wash the back of it with a very damp sponge. The sheet thus handled must dry in the air, as drying with heat will cause red spots, especially when pink paper is used.

THOSE of our readers who were so fortunate as to meet with Mr. and Mrs. Tunny, of Edinburgh, will regret to learn of the death of Mrs. Tunny. She was almost as thorough a photographer as her husband, having been his assistant for a number of years, and was both refined and cultivated in her tastes. We have had the pleasure of meeting her, and sharing her hospitality, and regret to learn of her death.

IMPROVISED BURNISHER. - A corre-

spondent of the English Mechanic says: "Amateurs who have not a photo-rollingpress can put a first-class gloss on their C.D.V. by the following means: Get from an ironmonger or zinc-worker two pieces of sheet zinc, size about 41 inches or 31 inches (it will have a splended polish if new, and cost about twopence); serew your washing or wringing-machine rollers down, place your C D.V. between the zinc plates, and roll the same between the rollers. When the C.D.V.'s come out you will find that they are glossed. If you warm the top plate, you will find a superior gloss on. If you get two polished steel plates you will be able to gloss your C.D.V. equal to any rolled with a photo press. You can get a finer gloss by warming the plates. If you should be out photographing, and spill part of your sensitizing solution, so that the plate is not covered, you will find that by placing two or three clean glass plates behind the dipper your solution will cover the plate. Of course you can dilute your bath a little, too."

NICKEL-PLATING WITHOUT A BAT-TERY .- Dr. Kayser has succeeded in coating metals with an alloy resembling German silver, thus giving them a handsome finish, and making the surface more durable and permanent than that of tin or silver. He first melts one part of copper and five of pure tin-preferably the Australian. The alloy is granulated, as usual, but not too fine, and then mixed with a little water and cream of tartar (as free from lime as possible) into a paste. To each two hundred parts of the granulated alloy is added one part of ignited oxide or nickel, and the articles are laid in it. After boiling a short time, they become beautifully plated. Some fresh oxide of nickel must, of course, be added from time to time. Brass and copper articles can easily be plated in this manner without previous preparation; those of iron must first be copper-plated. By adding some carbonate of nickel to the above bath, or to a common white bath, and boiling, a coating richer in nickel is obtained, and darker, varying in color from that of platinum to a blue-black, according to the amount of nickel salt added .- Man. and Builder.

THE Vienna photographers are discussing expected hail-storms, and how they shall protect their skylights from their ravages.

BARON SCHWARZ-SENBORN called the attention of the Vienna Photographic Society some time ago to the important part played in the United States by the magic lantern in scientific lectures, and thought that that excellent instrument might be much more largely used in Germany for educational purposes to great advantage. What the American stereoscope has done for the lovers of the stereoscopic picture, the same is Marcy's sciopticon doing for the lovers of magic lantern pictures and lectures. No doubt the sale of slides, and the interest reawakened in the lantern in this country has been brought about by the introduction of this valuable piece of apparatus.

WE are pleased to learn that our little unpretentious magazine, the Magic Lantern, has a namesake in Germany, our friend Dr. E. Liesegang, of Dusseldorf, being the editor, and that copies of both were laid upon the table by the president at a late session of the Vienna Photographic Society.

A German photographer suggests that, after careful examination, he believes that the sliminess which occurs in positive silver after considerable use, and which is such an annoyance to printers, is caused by gelatin which has been added to the albumen, in order to give a beautiful gloss to an inferior paper, which has become dissolved in the solution.

### CLEANING OF PLATES AND LENSES.

All persons who work in photography know, or should know, that to clean lenses, and preserve the polish of their surfaces, they should not be wiped with a cloth, but after having removed the dust by means of a brush, they should be covered with a thin coating of grease, then wiped with a piece of very soft chamois. An amateur asserts that for this purpose there is nothing better than chicken grease. Without contesting the merit of this fatty body, we simply use tailow, which we recommend not only for lenses, but also for plates which are to be collodionized.

The dealers in glass plates for clichés,

coat them with grease, and simply wipe them before delivering them to photographers, and it is known that these plates generally give very pure clichés without any other cleaning.

Many methods have been suggested for removing the varnish from old plates. A mixture of benzin and alcohol in equal parts, agitated and poured on the plate, generally acts very quickly and very well. The last traces of reduced silver which may yet adhere are then removed by iodized alcohol (alcohol 100, iodine 0.50). When the surface is properly cleaned it is rubbed over with the finger or a tuft of cotton lightly impregnated with tallow, and wiped dry.

Plates thus prepared may be kept indefinitely, and are protected from dampness, the enemy which too often imposes itself between the collodion and its support. It is well to rub the plates, whatever may have been the previous mode of cleaning, with a little tale, which increases the adherence of the sensitized coating, and does away with the gelatin or albumen, the use of which would otherwise be indispensable for the preparation of dry plates.—Bulletin Belge.

### OXYGEN.

A Mr. Zinno has just discovered a new method of obtaining oxygen in abundance by the action of hypermanganate of potassium on binoxide of barium, diluted with water. By this process, 200 cubic centimetres are obtained for each gramme of the substance used. This discovery may prove useful for lighting purposes.—Bulletin Belge.

### UNALTERABLE SILVER BATH.

Here is the formula of a silver bath that the inventor gives as unalterable:

The paper is floated in the bath for three or four minutes. As soon as the operation is finished the bath is poured into a bottle, and kept well corked.—Bulletin Belge.

VISIT OF THE EMPEROR OF BRAZIL TO THE OBSERVATORY AT MEUDON.

Saturday, June 2d, the Emperor visited the Astronomical Observatory under the direction of Mr. Janssen. During the visit, which lasted over two hours, it was noticed that the august traveller took the greatest interest in the explanations furnished him in regard to the services rendered by photography to astronomical studies, the processes and apparatus used, and the results obtained.

Dom Pedro successively visited the ateliers, the laboratories, the tents with moving cupolas, in which are found the large telescopes, pointing at all times towards the heavens, and which, owing to the arrangement given to them by the eminent astronomers, serve equally well for ordinary and photographic operations.

The different systems of regulators and stops adopted by Mr. Janssen, which are so simple and so accurate, particularly attracted the attention of the Emperor, whose great knowledge of scientific matters has obtained for him the title of corresponding member of the Academy of Sciences, of which he is justly proud.

With magnifier in hand, His Majesty gave a long examination to the solar images that were placed before him, especially the one that was taken on the 15th of April last, and which reproduces the accidental spot which at that date showed itself on the disk. These marvellous prints, the diameter of which is 45 centimetres (171 inches), are obtained in the fiftieth of a second, on dry tannin collodion, developed by sulphate of

After having warmly congratulated the illustrious founder of this observatory, which has proved so useful to science, the Emperor left, carrying with him, as he said, a profound recollection of his visit .-Moniteur.

THE French Photographic Society has proposed two new competitive trials which will close January 1st, 1878. The first, which is international, has for object a simple and practical method of doing away with the glass plates used in making negatives, replacing them by a tissue or pellicle which would offer, without sensibly changing the ordinary operations, the triple advantage of lightness, solidity, and facility of transportation. The second, to which Frenchmen alone are admitted, refers to improvement in travelling apparatus, and the Society designates to competitors a model of simplified apparatus, which seems to realize all desirable conditions, advising them to keep as close as possible to it.-Moniteur.

THE THUMB-NAIL .- Hogarth, the unrivalled caricaturist, cultivated his right hand thumb-nail for the purpose of making sketches of such things as he saw in his travelling. American landscape photographers are in the habit of cultivating their thumb-nails to a certain strength and shape for the purpose of serving as screw-drivers to turn such little screws as are used in some The idea is not of their apparatus. patented.

# Editor's Table.

PICTURES RECEIVED -From Mr. M. L. Daggett, photographer for Reed & Barton, Taunton, Mass., we have received some very fine specimens of silverware of the manufacture of Messrs. Reed & Barton; they are among the finest work we have ever seen of this kind, and reflect great credit upon the photographer.

From Mr. G. M. Elton, of Elmira, N. Y., some

very sweet pictures of little children, which show not only great skill but great patience on the part of the operator. We also have a new style of picture of Mr. Elton himself, printed in promenade style, the actual picture being about 13 inches wide by 53 inches high, with a tinted border. The effect is very pretty.

From Mr. A. J. W. Copelin, of Chicago, we

have received some admirable cabinet pictures, which excel anything we have had come to our table for a good while. One of them represents the Madonna in tears, which is very admirably posed, and arranged, and lighted. Another represents a young lady with a draped head, and still another, a lady in Turkish costume, all of which are admirable specimens of photography. Mr. Copelin promises to make us some negatives for the magazine shortly, and our readers will have an opportunity of seeing what excellent work he can do. He has made great progress.

Messrs. Fosnot & Hunter, of Keosauqua, Iowa, send us a photograph of a radish shaped like the human hand, with four fingers and thumb; very human-like, indeed.

ITEMS OF NEWS.—Mr. K. H. Wallace, of Brownsville, Texas, wishes us to caution our readers against a firm in Brooklyn, N. Y., who recently advertised in our magazine for wastes to refine, stating that after sending a batch of waste he has been unable to receive any return, or even an acknowledgment.

Dr. W. J. Land, of Atlanta, Georgia, desires us to remind our subscribers that some European photographer has rediscovered his old observation in regard to the use of alcohol in carbon printing, and says that they can find his original observation on page 439 of volume V of our magazine for 1868. We believe Dr. Land is entirely correct.

WE are frequently asked by photographers for permission to make extracts from our little works, The Photographer to his Patrons, Something New, and How to Sit for your Photograph, the plea being that they can get them up cheaper than we are able to sell them. We are sorry to have to say no in such instances, for the reason that we have spent a great deal of time in compiling these little works, small as they are, and considerable money, too, in making experiments to prove what we say. Moreover, we have striven to get them up in good taste, and have copyrighted them in order to secure their use to those who may purchase them of us, and also to make them a credit to all who wish them. We object, therefore, to permit them to be gotten up in inferior style, even though it does save our patrons a little money, for it would not only be a loss to us, but would be wrong to those who pay for the best article. Our reasons for objecting are quite as valid as yours would be if a cheap photographer asked you to lend him one of your negatives in order that he might make some prints from it for one of his patrons who was unwilling

to pay the price you asked. We hope all those who have hankered after our little works will see it as we do.

OBITUARY.—We regret to record the death of Mr. Albert Arter, at Zanesville. Ohio, of consumption, on June 26th, aged twenty-nine years. Mr. Arter was highly respected by all who knew him, and was quite a bright and promising photographer. We regret to see such young men go down.

On the next day, June 27th, at Hannibal, Missouri, a terrible calamity occurred which has spread a gloom over the whole community. Mr. George L. Crosby, who was a photographer in that city, of much promise, with his wife and two children, drove out in the country for a ride; a rain-storm came on which caused the streams to be swollen, and as the party attempted to cross a rickety wooden bridge, the structure gave way, and all were precipitated into the rushing torrent, and drowned. Mr. Crosby and his wife were well known and highly esteemed in the community, and their death has caused great sorrow.

FIRE.—We regret to learn that the gallery of Messrs. Slee Brothers, Poughkeepsie, N. Y., was partially destroyed by fire on the 22d inst. It was first discovered in the finishing-room, the cause being a mystery. By dint of great exertion on the part of the Fire Department, a portion of the building was saved, but the loss is about \$4000.

THE Trade Journal, of Louisville, Ky., notices at length the gallery of Mr. J. C. Elrod, of that city. It also gives us the information that Mr. Elrod is a candidate for the next legislature of that State.

The frequent choice of legislators from among photographers should encourage our craft to look onward and upward.

MR. S. R. STODDARD, the live photographer at Glen's Falls, New York, has favored us with copies of his entertaining little annuals on "The Adirondacks" and "Lake George," which are both gotten up in highly illustrated and beautiful style. We never read them without wanting to visit the scenes which they describe, and we suppose it is the author's object to create such a want among his readers, and if he succeeds, then he is, indeed, a good artist, as, indeed, our friend Stoddard is. He accompanies his books by a splendid photograph of his splendid baby "Leviticus," asleep in a hammock, and a "Moonlight View on Lake George," the latter being a fine bit of double printing.



We have striven during the first half of 1877 to make our Magazine better than ever before. Our patrons tell us that we have succeeded. We shall now try harder still. Our first aim is to benefit our subscribers. We have always conscientiously taken sides against everything we believed injurious to their interests, and beaten it down when we could. Shall such a course be continued and continue to be supported? We have refused large sums for a contrary course, or even for our neutrality, and even now are battling against certain foreign secret processes which the holders desire to introduce here by our co-operation. Give us your support, substantially, and we will help largely to support and defend you. If it does not pay you, we do not ask you to take our Magazine.

We ask your co-operation in extending its usefulness, and offer to all present subscribers, who secure us new ones, the following

For every new subscriber, for one year, \$1, payable in any of our publications, books, or, if preferred, \$1

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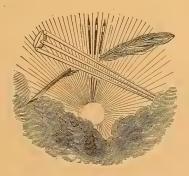
AN ILLUSTRATED MONTHLY JOURNAL,

## DEVOTED TO PHOTOGRAPHY.

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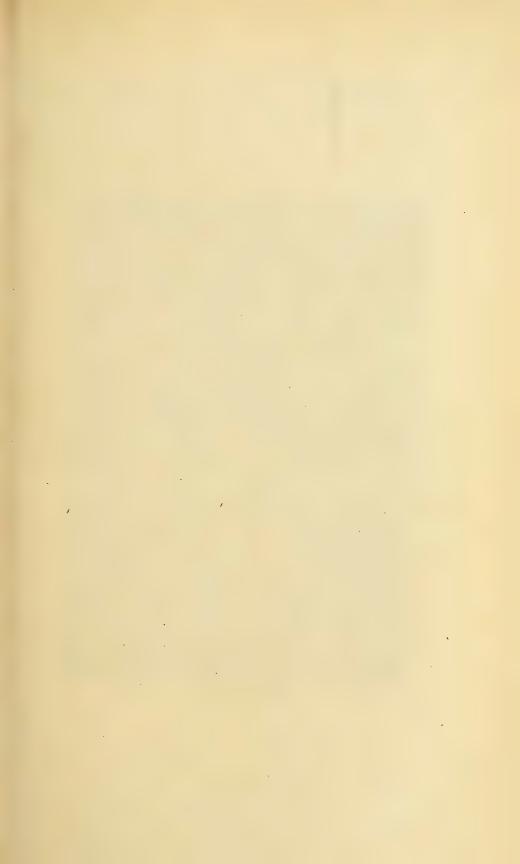


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# Philadelphia Photographer.

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#### HOW IS BUSINESS?

This query is now the all-absorbing one, not only in this country, but everywhere; more particularly is this the fact when we pit the query in a little different form, and ask, How does business pay at present? We wish, however, to consider it in a little broader view, and especially with reference to the photographic business. We have, therefore, written to a number of our leading photographers in order to collect some statistics for the use of our patrons at large, and put certain questions to our correspondents, hoping to get from them similar detailed answers, so that we could classify the facts and thus present them to our readers. The responses, however, are so varied and contain so much that is useful, which would be lost if we attempted to present them as we originally desired, that we give them to our readers with all of their original point and freshness. It will be seen by the correspondence which follows that our queries were:

First. As to the prospects for business during the coming autumn and winter.

Second. As to what styles are found most acceptable to the public.

Third. What are the present prices asked for cabinet and card pictures?

Fourth. Is any improvement found in the tastes of the public, and does it appear to appreciate good work more than heretofore?

Fifth. Experience as to charging a good price, and making the best of work for your patrons.

Sixth What sort of light do you use, and are plain or fancy backgrounds most acceptable?

Seventh. Do you find any increased demand for composition pictures?

As we have said, we addressed a few of our patrons in order to get the thing started, and now, we make it an open letter, and shall be glad to hear from all quarters, any moderate discussions which seem to our readers will prove of use to their coworkers. In these dull times discussions may help us forward, so let us have the subjects fully ventilated.

We will now proceed to give some of the answers that we have received to the vital question, "How is business?" and thus show how it is

#### In Boston.

MR EDITOR: In reply to your invitation to pen an article for the journal, I send you the following, and were I not deeply impressed with the importance of some of your questions I would hardly have been tempted into this. Not from any lack of interest that I feel in everything pertaining to the photographic art, but simply from a sense of my inability to do the matter justice.

In an experience of twenty-seven years, the dullest should learn something. Just that length of time have I been engaged in reaping a living from the photographic business.

I commenced at the bottom, and have done hard work of all kinds. As I came along up I have been outstripped in the race many times by those who knew more about making money than I did, but never by one who tried harder to do the best he knew how.

Many years of my life in the business have been devoted to doing the best I could for every one who came along, without regard to a money return for my efforts. Now I can say my efforts are chiefly directed to getting the money, but at the same time without any abatement of my endeavors to make pictures all they can be made, with all the light and experience I have, combined with all that has been done by the many that have contributed to make our profession what it is.

You ask for some details of our manner of doing business, etc. I will here say, mainly for the benefit of the younger members of the craft, who may chance to read these lines, that I have always made it a point to deal square. Never to tell wrong stories, and always so far as in my power to give people an equivalent for their money. This word of advice I consider the more necessary, as you all know we have one of the most elegant chances in the world to swindle people if so disposed.

A photographer's patrons are largely at his mercy. For instance, a customer may come in and inquire as to the durability of the specimens he finds on your walls. I have known the reply to be instant and all assuring, "O, those are permanent; they are finished in crayon," when the facts were, the prints were solars, and the most perishable of anything that can be made in our line, and all the finishing in creation would not prevent them from fading

That 1 know to be practiced up to the present time, and it is a blot upon our fair fame.

Any close student of the photographic art, or any one with only a bread-and-butter interest in the business, cannot but be more than pleased with the progress that has been made in the last few years. Indeed, it is

truly astonishing. Go where one may, even to the most remote corners of the country, and we will find good and sometimes most excellent work made, and to my knowledge better pictures are being made to-day by some country than by some city photographers; and this more particularly in the comparatively new branch of carbon work. And now that I have to speak of carbon, I almost tremble with the feeling that I am treading on dangerous ground, for have I not read some of the articles that have been published on that subject? But I cannot tell you much about our business without speaking of it, so for that reason I must be excused.

We are using the carbon process to-day successfully. We make nothing larger than cabinet card in silver.

We do not consider it of so much importance for small pictures, because people sit eften for those, but for everything designed to hang on the wall, all copies that require to be finished, everything from 4-4 to life size, are printed in carbon and finished by the best artists that we can command. We use the single transfer for our enlargements, which is very simple, and when it becomes known will be of very great advantage to the operator. At present it does not seem to be generally understood.

It is known to many of your readers that my worthy partner, Mr. Rowell, started carbon printing in America more than a dozen years ago, and it has taken from that time to this to make it anything like a success financially.

Our prices are the highest that we can charge for the present quality of our work. When we can make better work we can charge higher prices. Prices have steadily advanced since the great war rush. We now charge \$6 per dozen for cards that we made then for \$3, and at the latter price we made money; now we can make no money on cards. Then we knew nothing about finishing negatives, or burnishing; now those operations consume a great deal of time. Then one sitting as a general thing sufficed; now it is the exception when a sitter orders from the first set of negatives.

The rule is to sit twice, and often three

times, not because we have not made good pictures; they acknowledge they like them, but want to try again, just to see if they cannot get something better. Even babies are brought to sit over, on account of expression, so fastidious have our customers become.

We use three glasses on a sitter, as a rule, making two impressions on a glass for cards, and the same size glass for cabinets, making one impression.

We have no trouble in getting our prices; our only trouble is how to increase the cost of our work, that is, make it worth more money.

We consider our success to depend entirely upon maintaining high prices, and never losing sight of the main point, viz., to make the best work we know how.

As to how much the public taste has improved it is hard to say, but that it has improved there is no doubt.

When a sitter comes with two or three sets of proofs, and tells you he wants to sit again, but don't know why, and finally order from the first set, you begin to doubt any cultivated taste, or even common sense in the subject, and yet it happens every day.

On the other hand, and to offset that, we must look at the other side, and I would not be doing justice to a large number, and by far the better part of our patrons, did I omit in this article to bear testimony to the many flattering compliments bestowed upon us by the most cultivated and appreciative people of this city.

Our great point now is permanency. For nearly thirty years we have been making pictures that have lasted indifferently well, some longer, some shorter, but a large majority of which are faded and gone. In the face of these facts we cannot expect the public to be very enthusiastic, or even take our word at par for anything new we may have to offer them, considering the amount of lies that have been told them. Consequently we must expect to peg away for some time to come to eradicate the present impressions on the public mind, and substitute something better.

Business thus far this year has been good, considering the extreme general depression,

and we look for increased improvement in the autumn.

For styles we confine ourselves strictly to plain portraiture, and attempt little in the fancy line. This, I think, is induced more by the tastes of our customers than of our own choice.

Accessories are very well when rightly used, but in unskilful hands are better omitted. We cannot all be Saronys or Notmans, neither are the tastes alike in different communities, therefore we must be governed largely by circumstances and the demands of those who seek our services. Herein lies the secret of success in our business (and in every other, for that matter), to combine all the advantages that a quick eye and active brain can discover, with the greatest possible amount of amiability of which human nature is capable.

I mentioned in the early part of this article that I was now largely devoted to looking after the money part of the business; that is, getting paid for what we do. By so doing we have been enabled thus far to pay 100 cents on \$1.

My experience is that this long-suffering public, whom we have so fearfully abused, would have no hesitation in getting even with us, by walking off with any amount of goods if we would let them. Therefore we demand payment of all small sums at the counter, unless it is somebody that we very well know; and it is because we do know some very well that we make this little demand. Of course we have names on our books that we would be only too glad to charge any amount. We make our bills monthly, and have little trouble in collecting.

It is a part of our religion, indeed the first article of our creed, to pay our bills, and we consider it a charity both to ourselves and our customers to make them do likewise. A man owing a bill in one place is very apt to go elsewhere, for an article in that line, if he happens to be a little short, so we think that pay as you go is the best practice for all concerned.

E L. ALLEN.

#### IN PROVIDENCE.

As to what style of picture I find mest

acceptable to the public, my answer can be made in one single word, to wit, vignettes. My price for card vignettes is \$5 per dozen, and \$3 per half dozen. My price for a card photograph, plain or in any other style but vignette, is \$4 per dozen, and \$2.50 per half dozen. Of course we show samples of the different styles of printing, and the vignette is chosen by my patrons in nine cases out of twelve, which is very satisfactory to me; for I not only get the extra dollar per dozen, but I am enabled to give my patrons the style of picture I myself prefer. In my judgment there can be nothing made so neat as a clean white vignette mounted on a simple white mount, without gilt or other ornament. I admit that I like the beveledge card made by Collins & Co. of your city, but the difference in price between the plain white card and the bevel-edge is about \$25 per 1000, and the public do not appreciate that difference. strongly in favor of the best materials, and have no doubt that many valuable prints have been spoiled by being mounted on a card that contained deleterious matter, and dampness affecting the same soon destroyed the print. But when I use a mount made by Collins & Co. I have always felt that I was using the best, and like Powers & Weightman's chemicals, they are the goods I always seek to get.

Just here I would mention a little experience I had two years ago, which led me to decide to use only the best mounts I could get. I had an order to furnish some photographs for advertising purposes in the street cars, and the advertiser obtained cards from his printer, with such matter printed upon them as he desired, leaving a blank space in the centre for the photograph, which I made with the usual care, and in less than ninety days every print had turned more or less yellow, which I can attribute to no other cause than impure card stock.

To return to the subject of vignettes, I think the same preference exists for larger pictures to be printed in the vignette form, even to life-size; for although my price for vignette cabinets is \$9 per dozen, while the plain are but \$6, a majority prefer the vignette.

Your next question is the most import-

ant for the proprietor of every gallery in the country to ask himself, to wit, "Do you find any improvement in the taste of the public, and do they appear to appreciate good work more than they formerly did?" I should answer most emphatically, YES. The whole public, from the most ignorant to the best judges, seem to want the best they can get, and those who are at all able will pay for a good thing, and would feel ashamed to give in return for a picture they had received from a friend, a picture that would at all appear to be of less value than the one they had received.

Mr. Editor, if one of your friends should present to you in exchange for the best card you were able to procure, a tintype or a miserable card made by one of the dollar a dozen men, that friend would not elevate himself very much in your favor, and the public pretty generally understand this matter, and when their means will permit they will patronize an establishment where good work is done, and where a good price is asked and obtained.

Your next question as to what kind of light I use can also be answered in one word, to wit, weak. I do not use more than half the light that I did ten years ago. My present light is what is known as top and side combined; is of white groundglass; northwest exposure, and twelve by twenty-two feet, the toplight being twelve by fifteen, and the sidelight twelve by seven; the pitch of toplight being about forty-five degrees, and the lower part reaches to about nine feet from the floor, where it rests on the sidelight, which extends to within two feet of the floor, but curtains cover nearly the whole light and only a subdued light reaches the sitter; but, Mr. Editor, there is much humbug about this light business. If the operating-room is of good size you can find a favorable spot beneath most any kind of light for the sitter, and excellent results are often produced beneath what would be termed a bad light. Very much more, in my opinion, depends upon good management of light and shade than the particular angle, the point of compass that your light enters, or whether the glass be ground or plain. Yet I should want to avoid a glass, the color of which would give any color to

the light in the room. If brick or other objectionable buildings surround your operating-room, I should, by all means, use white ground-glass, and, as I said at the Buffalo Convention, "filter your light more and your bath less;" for if a light be objectionable in color, after it has passed through a white ground-glass, it has been filtered of its objectionable rays, and will be found white, and works quick; in a word, I can get along with but little light if it is pure white.

You ask if I am in favor of fancy backgrounds. I would say that I do not wish to be without several, yet I have always been more successful with a plain ground, and believe a woollen, with a shade of gray adapted to your light, the very best made. Composition pictures would, no doubt, be more admired and sought after if there were not so many shown that were at once ridiculous. Every person of sense who has examined a dozen composition pictures made with fancy backgrounds could discover something in eleven of them that, as the street gamins say, would "give them plumb away," or, in other words, could discover some blunder made in the composition that made the picture a botch if not an impossibility, and for this reason I confine myself pretty much to what I am most likely to make a success. The land is large enough and firm enough for me to walk upon, so I keep out of balloons. I am making a picture which I find very pleasing, and call them "Paragon Portraits." The negative is made on plate 18 x 22, and when finished, cut out about 17 x 21, and mount on board 22 x 28. I seek to imitate the old-style steel engraving of about that size; the figure or figures are not larger than is usually made on 10 x 12, or say figures not more than from 8 to 11 inches; this enables you to display furniture, etc. to good advantage without crowding at all. I charge \$10 for making a negative, and \$5 for each finished print, which, although a very low price, I had much rather do than cards at \$5 per dozen.

You ask my views as to price; they are t these: I believe any man, whether of more or less experience, will be better off to charge a good price for his work, and a man will

bring to his gallery just such a class of trade as he caters for; if his price is well up he shows the public at once that he places some value on his work, whereas, if his price is below the average, he leads the public to think that he does not himself consider his work up to the standard, for if he did he would ask as much as others. Of course this reasoning is subject to location to some extent.

Next to my gallery, and within fifty feet of my door, a man has been making sittings for ten cents all winter, but like the hoary frosts he is no more. Do you believe for a moment that the better class of trade entered his doors? Not at all; but had that ten cent advertisement not been at his door people of good taste and plenty of funds might have gone in, for you know good pictures can be bought to put in showcases at doors, and many may be deceived thereby—once, and only once. I believe I have answered the questions asked in your communication, and I hope they will prove satisfactory.

G M. CARLISLE.

#### IN CONNECTICUT.

NORWALK, August 1st, 1877.

FIRST, regarding prospect for fall trade; two weeks ago it looked gloomy enough, but in a letter received from my son, who is travelling in the West with goods pertaining to photography, he says prospects for a good fall trade were never better. Crops are simply immense. When these millions of bushels of grain find their way to market, and the returns in cash come in, surely there must be an improvement.

A second reason may be, that foreign markets are ready to take our surplus at fair prices, and there will be an increased consumption of goods, resulting from increased ability to pay for them.

To your second query, regarding styles most in demand, I will say unhesitatingly that with me the cabinet vignette is the most called for. I have consulted leading artists in New York, and they concur in the same opinion; but there is a growing demand for promenade and composition pictures. That there is not a greater sale for the latter styles may be owing to laziness on the part

of photographers. Regarding prices, my prices within two years have been reduced to \$10 for cabinet and \$4 for carte de visite, formerly \$12 and \$5 per dozen. My experience is, that good prices insure not only first-class people (in plain words, rich people), but a class of customers of both sexes who spend money freely, and will have only the best. I find a decided improvement in the taste of the public, and they appreciate good work. It is a source of regret to me, and must be to many others who love the art, and aim high to attain perfection, to find leading men in New York so weak-kneed as to reduce prices one-half,men who have been prominent in our conventions have brought a lasting injury to the business.

You ask what sort of light I use. In answering this some may say, "Well, he must be old fogyish, to use a light invented thirty years ago;" and yet it is true, and what is stranger still, this is the standard light of the present day; but how few know or have ever heard of the inventor, the late M. M. Lawrence, one of New York's oldest and best daguerreotypists. But to the light. Starting two feet from the floor, rising six feet perpendicular, then sloping at an angle of 45 degrees, 12 feet, width 12 feet. With this light groups of ten or twelve can be taken in fifteen seconds. In taking pictures of children, I place them within two feet of the side window, and get them in a flash. In making shadow pictures I shut off all toplight, place the subject opposite the centre of the sidelight, and by careful adjustment of screens produce good effects in about fifteen seconds; working from the centre, by having two backgrounds, plenty of depth at either end of operating room (which is forty feet long), the canvas can be rolled to either side according to the drawing of the face; should the subject have a crooked nose, of course you would put the crooked side toward the sidelight, leaving the best side in shadow. There has been much discussion, and many false ideas advanced through the journals, regarding blue glass for skylights, and one great reason why it has not been more thoroughly used is owing to the difficulty of obtaining the

proper shade. About twenty-one years ago I was troubled with weak eyes, owing to use of cyanide of potash, and it struck me that blue glass would relieve my eyes as well as the sitter's, and if it would not retard the operation, it would be well to adopt it in building my new light at Norwalk. I consulted C. C. Harrison, the wellknown instrument maker, and he said that it would accelerate the production of photographic pictures. The glass could not be obtained in New York, and Schenck & Downing sent to England for it; when it arrived it was a beautiful shade of light blue, ground on the inside; this I have used for twenty years, and would recommend it. This was the first blue light ever used for photography, but the credit is due to C. C. Harrison.

Having answered your queries, and given you some dodges, allow me to say a few words in conclusion in relation to one or two articles in the August number of your interesting journal.

The article in relation to training of experts and specialists is very timely, and valuable to student as well as artist. time cannot be far distant when an institution such as you describe, where photographers can perfect themselves in every branch of the art, will be established in some large city; and doubtless there are many experienced operators who, tired of the toils and vicissitudes of business, would gladly exchange, and act as teachers for the Photographers' College. Another article, from Mr. Cadwallader, "Shall prices Come Down?" is very good, but I think his prices for half dozens these hard times would drive customers away. My policy has been to secure the sitting, and if you please the customers, they are pretty sure to order the dozen. The price, \$4 for 4-4, is out of proportion; compare the amount of work getting up one 4-4 to making twelve good and perfect cards. I make cabinet, first at \$2, half at \$5; 4-4 at \$2.50; carte de visite, \$4 per doz.; half-dozen \$2.50. These prices are moderate and fair considering the times, and meet the customer without a groan. A bird in the hand, etc.

In answer to the question, "Do bur-

nishers cause the print to fade?" I feel like saying "Yes," but it is only a suspicion.

Now I must close, and finish reading the journal. Very interesting are the July and August numbers.

Yours, truly, E. T. WHITNEY.

#### IN TEXAS.

SAN ANTONIO, TEXAS, July, 1877.

Way out here on the frontier it might be thought there would be little taste manifested for the photographic art. I assure you it is quite the contrary. The panic which has depressed business enterprises of every class throughout the country has been but little felt here. This is somewhat attributable to the products of this frontier country. Cattle, wool, and cotton being the chief, find ready markets and at good prices, and the cattle market has been remarkably good this season, consequently the prospects are that all branches of trade will be good this coming fall and winter.

The present style seems to be the vignette in gray, which, I must say, is beautiful when properly handled. Cabinets and cards are the prevalent sizes, and a large proportion are cabinets. I seldom make less than one dozen from a negative, which I get \$12 for, and \$8 per half dozen; cards \$5 per dozen, and \$3 per half dozen. I find people will pay good prices for carefully finished work, and at present I have adopted the plan of doing my work myself, and thus use the proper care in having it well done, and I am satisfied this, with me, is much better than trusting to such help as I am able to hire.

I find a decided improvement in the taste of my patrons, and frequently the remark: "If you can do better by giving more time and pains to the work, do so, and I will willingly pay extra for it."

In my experience of twenty-five years and over in the photographic art, the class of people who form the greater portion of my patronage are willing to pay good prices for good work, and I must say I believe photographers who are continually dropping on prices in an effort to secure trade or an increase of trade, make a great mistake; they not only lower themselves in the estimation

of the people, to that class who are such poor workmen that the inducement they offer of cheap work is the only recommendation they have, but they fail in this, that they do not increase the receipts so much as the poor work. The time has passed for the better classes to be thus induced to patronize inferior workmen. The inducement of cheap work is not sufficient to secure a class of patronage that are sufficiently cultured to desire anything excellent, and I do not believe it is policy for one who has any respect for the art, to reduce prices to such an extent as to cause slighting their work, which it does. Good prices give tone and character, and this is what refined tastes admire. I make but few photographs with fancy backgrounds, as such are only adapted to full-figure pictures, which I do not consider advisable for card or cabinet, as it makes the face too small to give a faithful likeness, and enable the proper display of light and shadow. In 11 by 14, or larger, full figures will answer very well. While the bust, or head and shoulder photographs have become somewhat hackneved, yet in a majority of cases I much prefer them to full figures. The hand is sometimes a very beautiful and expressive organ, but sometimes a great source of annoyance, and often spoils what would otherwise have been a very fine picture. As an instance of this, I would cite the very beautiful specimen by our friend Rocher in the June number of the Philadelphia Photographer. The picture I allude to is where the young lady has drawn the drawer of a table, and is in the act of withdrawing a letter or other article therefrom. The right hand is cramped and stiff, while the left is not in an easy position. This is one of the many difficulties of that class of work. I am, and always have been, a great admirer of friend Rocher, and consider him at the head of our art in this country. His work shows careful study and superior workmanship all through.

Light is a subject which has been pretty thoroughly discussed, and one which seems to me of much importance, but I have found in my practice that not so much depends on the peculiar form and size of the light, as in the mode of handling the light. I use an ordinary side and skylight; the size of sky-

light is 10 by 15; sidelight running from within two feet of the floor to the skylight, where the two sash meet.

I have been in Texas four years, and when I went North in April I expected to find myself far behind in many things I, however, found my work much like that I saw in the cities I visited. I was in Baltimore, Washington, Pittsburg, Cleveland, Chicago, St. Louis, and other cities. This was quite a surprise to me, as I believed I had been in this far Southwest country so long I might have lost some of my spirit, and retrograded instead of progressed. I, however, do not think there has been much progress within three or four years. Photography seems to be resting awhile on its already won laurels.

H. L. BINGHAM.

#### In Wisconsin.

WE are not dead, neither do we sleep, but are busy in our efforts to convince people photographs must be had, if "times are hard;" and we have partially succeeded, for business has been very fair, and promises to be better this fall than for several years past.

We are having quite a demand for large portraits, mostly in India ink, which command prices from \$15 to \$50 each.

We still retain our prices of \$3 to \$4 per dozen for cards, the size of head determining the price.

Cabinets and promenade, \$4 and \$4.50 per half dozen, or \$6 per dozen.

4-4's, we charge \$4 for first copy and \$1 for duplicate, or make three for \$5, which is the usual case, and gives us a still better chance to sell frames.

Our prices are higher than any other artist charges in this place or adjoining towns; but we will charge enough to do justice to our work, and make enough to keep as well-furnished and equipped a gallery as can be found in the West; and by taking extra care to give the best position to bring out every good point of feature and character in all faces, and modify the bad points, we succeed in giving good satisfaction and drawing customers from far and near.

Every day we have more or less calls from strangers, and people just spending a day or so in this place, who "have heard of the gallery and could not leave town without calling;" and they seem to be charmed with everything about the rooms, and speak of its being so different from any other gallery.

We have proved that it pays to keep a nice gallery, and furnish it in such a way as shall impress the public that they are in an art gallery, and the proprietors understand their business and keep up with all the improvements in our art.

I know that people are willing to pay more for work when their surroundings are pleasant enough to reflect some animation in the shadow of their face, than to sit for a picture where the ladies will gather up their dresses to keep out of the dirt and filth on the floor, and feel like dusting the chairs before they can sit down. I believe it is impossible for a person to have a happy expression in such a place while sitting for a portrait.

A dirty gallery and low prices go hand in hand. If you can't do good work enough to command a good price, which will pay to keep things in good taste and order, do let the business alone, is my advice to every one.

We find that our patrons, far and near, are becoming educated to know what constitutes a nicely finished picture, and the demand is increasing for composition pictures, though the most we have to work for seem to prefer a fair-sized head, either printed full or shaded vignette, in preference to fancy backgrounds and full-length figures.

We use a very steep north skylight and sidelight, and are never troubled with sunshine, but have a very uniform light, and working quickly.

I believe the time has come when good work can command good prices, and success alone depends on these two things, combined with order, cleanliness, and taste in the arrangement of galleries.

MRS. E. N. LOCKWOOD.

#### IN CHICAGO.

As to business for the coming fall, I think the prospects are rather encouraging, more so than they were one or two years ago. Business at present is what it always is in the summer months, not very brisk, but whatever there is, shows signs of appreciation of good work, and more so, appreciation of our endeavor to give our patrons something which will rarely fail to please.

The styles of pictures mostly sought for at present are cabinet and promenade, full and three-quarter figure, less bust, and very few cartes de visite. The imperial, as I have, introduced it at the Centennial, seems to become quite a favorite picture; it takes sometimes the place for an order of a larger picture, whereas this dozen (\$30) is no more than would be charged for one large portrait. In regard to the taste of the public, I will say that one and two years ago I encountered often difficulties upon showing the public what we call our composition pictures. Many at that time were too much accustomed to the old stereotyped photographic pose, but now it can be plainly observed that not one out of a hundred want this oldfashioned pose, but gladly accept what I think proper to make for them. There is no more objection made to a given pose, particularly in the full-figure picture, and I may fairly call this a great step forward and onward in the way of improving public taste. It is evident that in the wav I work, more care is taken in the composition, and, consequently, more time is spent than is done with ordinary poses, and it further follows that I charge for my work accordingly.

The prices at present are for cabinet, \$12; promenade, \$15; boudoir, \$22; imperial, \$30 a dozen. Single pictures from 4-4 upwards: 4-4, \$6; 8-10, \$10; 11-14, \$15; 14-17, \$20; 17-20, \$30.

It is at least cheering to say that no objection is made to my prices, which, in fact, I have never found the necessity to lower, and never will. I do not believe cheap prices help the reputation and business of a photographer of any pretension. Nor do I believe in working for nothing.

The description of my light was given in the February number, 1872, of the Philadelphia Photographer, and is a pure north sky and sidelight, plain glass and blue curtains. It pleases me very much, and having full control over it by means of my system of blinds, I can produce any conceivable effect

under the same. In conclusion, I will say that if time and circumstances favor me I will try and be one of the competitors for your next prize. Meantime believe me to be as ever,

H. ROCHER.

#### IN MINNESOTA.

ST. PAUL, August 6th, 1877.

I PREDICT that business this fall will be brisk, for the reason of there being an abundance of wheat and other grain now going through the process of harvesting. In 1872, when I first came to this city, there were no cabinet photographs made to speak of; now with me fully one-third of my orders are for the cabinet size.

My prices for cards-\$3.50 plain per dozen; \$4 for vignettes; cabinets, \$6 per dozen, either plain or vignettes. Yes, I think the public understand better what constitutes good work now than they did ten or fifteen years ago. My observation for the past seventeen years has been this, that the photographer doing the best work has the most custom, and does the best business. In regard to prices, I claim that photographers should do good work and get good prices; not exorbitant prices, but such as will justify them in finishing their work up in first-class style. I believe in one price too, to all customers, but many photographers fall into the error of charging several prices for the same work, making the price to suit the customer. I think that locality and class of gallery should govern the price of pictures, good work considered.

My light is a top and side, plain glass, facing northwest; toplight set at an angle of about 40° or 45°, about 10 feet to the lowest pitch. I think for full figures that a fancy background is more acceptable than a plain one; am sure my orders run that way, in fact, by looking them over, find the fancy grounds preferred.

The bust figure and a well-lighted head seem to be the choice of the public, and I glory in it, for what is there for a photograph that is nicer or more artistic than a beautifully lighted head?

CHAS. J. STIFF.

IN INDIANA.

Indianapolis, August 1st, 1877.

The prospect for business during the coming autumn is decidedly gloomy, though it would seem that the immense crops raised in our State and elsewhere ought to make times better, but at present business is the worst I ever saw. I find ferrotypes the "style" that most persons call for these times, though if money was not so scarce their "tastes" might manifest themselves in another direction.

My prices for cards and cabinets are \$3 and \$8 respectively per dozen. I have a north toplight about ten by twelve feet; sidelight in centre, only about half so wide, and running nearly to the floor; plain backgrounds mostly for cartes and also for larger sizes, though occasionally a customer prefers a patent "Bendann" printed in; have no experience with "composition" pictures.

Now I have answered your queries as best I could, and I only regret that I could not give a more cheering report, but things look decidedly blue at present, and the immediate future promises little better. The outlawry of the past two weeks or so has given business a setback from which it cannot soon recover.

J. PERRY ELLIOTT.

#### A PERSISTENT EVIL.

TROUBLE IN THE DARKROOM.

It is seldom that any difficulty occurs in the chemical manipulations of photography that cannot be readily traced and overcome, especially by an experienced operator; but we have recently become familiar with a case which seems to resist all remedies, either known or experimental, and baffles every conjecture of the photographer himself, as well as those of his friends who are interested in solving this peculiar problem. So we conclude to lay the case before our readers, and see if any of them can throw any light on the subject, or recognize in the illustrations we here give the likeness of anything that they have ever had as an unwelcome visitor. Several weeks ago the photographer in question visited this city,

and brought with him two negatives afflicted with a sort of leprous disease, hoping to get some clue to the difficulty, but failing to do so, left them with Wilson, Hood & Co., who referred them to us. We examined them carefully with the ordinary magnifying-glass, and were much interested in the markings presented. Diagram A shows a



section of one of the negatives containing several spots, which constitute the difficulty under consideration. These are enlarged to about twice the original size. Each spot is a cluster of minute holes, or rents, in the film. At first, under the magnifying-glass, they had the appearance of splashes, but a peculiarity of them was that the little spots were somewhat in the shape of comets, with the tails pointing downward as the plate stood in the holder or shield, while at the top of the cluster the little spots were much thicker than at the bottom, as if some substance had come in contact with the plate either in the bath or holder, and spent itself in a downward direction. With this examination, we wrote our friend, suggesting various theories, such as splashes of silver solution in the holder in closing the slide, or some habit or manner of manipulating, to which we received the following reply:

July 19th, 1877.

FRIEND WILSON: Your note of the 16th is at hand, and I was very glad to hear you express a disposition to help me out of a most serious annoyance, which has been a daily companion for over four months, and I have tried everything that I have ever read of or known, but without any permanent relief. It seems to me that my order of working is the same as it has been for twenty years, and yet I have never had a difficulty during all that time that proper remedies did not cure. If the trouble comes from any want of knowledge of handling the plate, then

you must send me some one to teach me, if it should cost me fifty dollars simply to spend a day with me. My baths are large for a small gallery, holding about two gallons. I have several, all made differently; collodion of my own make, and from others; developers made different ways; glass all new and well cleaned, and albumenize according to Carbutt's plan given in the Mosaics. My bath-holder is glass, and incased in a box, and always kept covered. The trouble is the same with new or old baths, whether freshly filtered or not, well iodized, or not iodized at all. My mode of working is very simple. Glass soaked for some hours in nitric acid and water, then washed well and rubbed with a cloth. and while wet flowed with the albumen solution; coated with collodion, and, after a few moments' setting, put in the bath carefully, generally with a zigzag motion, and after from three to five minutes the exposure is made. In taking the plate from the bath I am careful to let it drain for a little before putting it in the shield. My shields are clean, and wiped out between the plates. I wipe out my camera boxes with a damp cloth, and the heavens only knows what it is, I don't, and yet I am as much in the fog as I was last March. My large plates are always worse than the small ones, and each in different plate-holders. If. in taking the plate from the bath, I wash it under the tap with water, then make the exposure, and before developing redip it in the bath for a moment, I do not have the trouble I speak of, but that process is troublesome, and fails to give a very good negative. My chemicals, as a general thing, work clear and bright, and my negatives are of good printing quality, and mostly free from imperfections, except such as you saw on the negatives left with your brother. A pinhole here and there in a negative I do not mind, but you will notice in those I left, that the holes come in clusters, like bunches of grapes, and many times through the day negative after negative will be half eaten up by these clusters of pinholes, and on account of this trouble I have not had one day of enjoyment in my business in four months, and therefore it would be a real godsend to me if you could suggest anything that would remove the difficulty. I shall wait your answer anxiously.

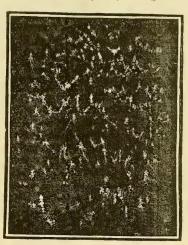
Yours, truly,

A. M. C.

P. S.—As an experiment, I built myself a new darkroom, and took nothing into it but my silver bath and collodion, but it did not help me a particle.—A. M. C.

This annihilated all the theories we had

thus far set up, so we made a microscopic examination of the spots (see diagram B),



and then wrote requesting information as to his make of collodion, what cotton he used, and in what part of the process the spots made their appearance. In reply we received the following:

July 23d, 1877.

FRIEND WILSON: Yours of the 21st inst. is at hand. I was glad to hear that you had taken hold of my case. My gallery has been closed for two weeks; am open to-day, and at work. During my vacation I threw aside all my old chemicals, and made everything new. I caught good clear rain-water, sent to Magee's for fresh silver, made the bath about thirty-six grains strong, iodized about three fourths of it, and had it in the sun until Saturday, and on that day got everything ready for work to-day, My first customer has just been in, and I could not help laughing at my first negative, although the laugh may have been a little fiendish, for about one-half of the plate along one side was half eaten up with the same fancy spots that have faced me for the last four months. I had cleaned out my plateholder well, varnished it over with shellac varnish, and had everything fresh. I use the snowy cotton, \$1 per oz. ether, alcohol, and excitants from Wilson, Hood & Co. Generally have two kinds of collodion, iodide of ammonium, 5 grains, bromide of cadmium, 2 grains to the ounce of collodion; the other is bromide of potassium instead of bromide of cadmium. The difficulty comes with the developing; nothing can possibly touch the plate during the developing. I find, as a general thing, that the longer the plate is

kept from the time it leaves the bath until the exposure is made, the worse it shows in imperfections. There is no doubt but that every spot in the negative is there in the developing. I have concluded that I will send you by mail the negative I took this morning, and as I have to make use of it, will you please return it to me by mail. The negative is from a country boy, and a very poor subject for a fine picture, as you will see. I will send the negative just as it is, without any touching. I want you to see it, because it is taken in a new bath, very carefully made, and the negative taken with all the carefulness I could use. So anxious was I to get clear of this vexatious trouble, I sent to Newton for a pound of his emulsion, and have tried that very carefully, and to its praise be it said, it made me a negative entirely free from pinholes, and from everything else! so that is laid aside.

Will you please return me the negative as soon as you make a proper examination of it?

Yours, truly, A. M. C.

The above letter left the matter more perplexing than ever. A thorough clearing out and making up of new chemicals ought to reach any difficulty existing in that department of the work; and we notice an entire transformation in the character of the spots on the negative sent us, which, by the way, came to us by mail broken into five pieces—the post-office stamp is no respecter of glass-for there were no clusters on this plate, but a good crop of ordinary, good-sized spots, such as we have seen result from the plate-holder falling over, or receiving a smart blow while the sensitized plate was in it. They were confined almost exclusively to one side, and were of such a character as would be produced by some opaque substance covering the film during the exposure, and which would be washed away by the developer, or dissolved by the fixing solution, leaving a clear hole without any spot in the centre, as where anything is incorporated with the film.

At this stage of the case we were considerably perplexed, and overlooking what our correspondent had said in his first letter about using a glass bath, we wrote, questioning him whether he used a vulcanized rubber bath, as we have known of very annoying cases of pinholes from this cause after the bath has been used some time, as

the silver solution eats away the surface of the rubber at the top of the solution, and every plate dipped scrapes off the particles, which follow and settle on the film, causing pinholes similar to some of these. To this A. M. C. wrote again as follows:

July 28th, 1877.

FRIEND WILSON: Yours of the 27th inst is at hand. Was glad to hear that you had not given up my case yet. My bath-holder is glass, and glass dipper. The bath-holder is large, holding almost two gallons of solution. The imperfections are not always alike, sometimes they are in clusters; sometimes one side of the plate is imperfect, whilst the other side will be entirely free from imperfections.

I have been experimenting some since I last wrote you, and whilst I have not found out the cause of my trouble, which I want to do, I have found some ways of helping matters very much. One is, if I let the plate remain in the bath about three times as long as usual, the result is a negative almost free from imperfections. Another is, when on plunging the plate in the bath, I give it a circular motion for some time, and then, after a couple of minutes or so, I give it the same motion as before, and then again on removing the plate from the bath, the result will be about as above, although the plate may not have been in the bath half as long as the first-mentioned plate. And then again, if on taking the plate from the bath I wash it with another solution of silver by flooding it over, the resulting negative is, as a general thing, entirely free from the imperfections. But these ways of getting rid of such an annoyance are troublesome, and take up a good deal of time, and I would like to be able to take my negative without having to resort to

I hope the statements given above will be of some use to you in finding out my troubles.

Yours, truly,

A. M. C.

The above letter left the whole matter as mysterious as ever, and we were obliged to confess our inability to offer any further suggestions as to the cause or cure, without a personal interview and investigation:

Some of our correspondent's experiments seem to point to the bath, and some to the plate holder. But he seems to have the same trouble with different holders, and yet, if holders have been a long time in use, the silver working into the corners decomposes the wood, which will crumble off in fine

powder every time the slide is drawn. This will occur in the grooves, where it cannot well be washed with shellac unless the whole frame were immersed in it. A test for the plate-holder can be easily made by exposing a plate under a negative, separating the two with strips of cardboard, and keeping the plate out of the bath, before developing, about the same length of time that would be required in making a sitting.

The last suggestion we made to our correspondent was to let the collodion set longer before dipping the plate, to which he again replied:

August 2d, 1877.

FRIEND WILSON: Your note of July 31st is at hand. I am not going to bother you any more about my trouble, but merely state in regard to "setting" of the collodion, I have tried it in all the stages of setting, and see but little difference any way. I now flow all my plates, after taking them from the bath, with another silver solution, which I filter between each plate. This is troublesome, of course, but it is the only way I can get rid of my trouble, and thus far has to be done. I am very much obliged for your willingness and anxiety to help me out of such an annoving trouble as I have had. The difficulty may pass away of itself, for I have no idea now that I can do anything more than I have done to remove it.

> Yours, truly, A. M. C.

Thus the matter stands, the spots holding the field, except by some complicated method of circumventing them.

There is one other method, however, that our friend does not mention having tried, and that is to tilt his bath after dipping the plate, so that the film side will be down; this is often a remedy for pinholes when nothing else will cure.

The diagrams are made from photographs, and are very correct representations of the difficulty under consideration.

If any of our readers have ever experienced any such trouble, or can suggest a cause or remedy that we have not touched upon, we shall be glad to hear from them.

THEY are trying to revive the opal glass or porcelain picture in Europe.



"I AM using some gem tubes, new ones, that work well with this exception: about every three days there collects a thick mistiness on the inside of the lenses, and they require to be all unscrewed and wiped out that often, or I cannot use them. If there is any way to prevent this I will appreciate the kindness if you will answer.—R. J. DEANE."

Answer.—One of two things is the matter: oil used by the brass-worker, or possibly by yourself, to render the screwing easy, may not have been thoroughly removed.

Remedy.—Wash the lenses in alcohol, and wipe the brass-work very carefully with a dry, soft rag.

Secondly, moisture inside or between the lenses comes frequently from breathing on them when cleansing them, and not drying them thoroughly afterwards. The tubes for lenses should be carefully dried also when the cells are screwed in.

To J. W.—The best way to reduce an overprinted positive is to make another, but if that is impossible, after removing the print from the printing frame, wash it thoroughly and then immerse it in a solution of hyposulphite of soda, nearly saturated, until a sufficient reduction has taken place. Again wash it thoroughly, and tone; it will tone slowly, but will approach a good color ultimately.

IRIDESCENCE.—During the misty, murky weather which we have had recently, photographers seem to be troubled a good deal with their lenses and glass from moisture, etc., and another fault which has been mentioned, which consists in the lenses looking, as it were, of all colors. This latter trouble may be caused by the condition of the balsam by which the two lenses are

united. To overcome the trouble, remove the lenses from the cells, place them in water warm enough to melt the balsam; thoroughly cleanse the two surfaces which come in contact with ether, and re-cement them with fresh balsam. This, however, only when a practical optician cannot be consulted, for many good lenses are spoiled by photographers pottering with them without any knowledge of what they are about.

To B. L. C.—You will never, in this world, get better tones until your negatives are better. You are working under a too diffused light or a badly regulated one, which flattens all your negatives, and you are unreasonable to expect good tones from negatives which are poor. The body of reduced silver in the blacks is insufficient to give rich tones. It is natural that you should be deceived in their looks while they are in the toning bath, for there they may appear very presentable, but the fixing process will cause great change of color, and flatten them. Give more vigor to your negatives, and your prints will have more snap.

M. F.—Distilled water does, sometimes, cause a bath to fog, and for our purposes we usually discard it.

#### MATTERS OF THE



The Organ of the "National Photographic Association" finds it difficult these hard times to get many matters which are of interest to the members, since no conventions are being held, and none of the members seem to be in the spirit of motion. Those who are conscientious on the subject still continue to pay their dues to Mr. Albert Moore, Treasurer, 828 Wood Street, Philadelphia, and those who wish to become members will find Mr J. H. Fitzgibbon, Permanent Secretary, 116 N. 4th Street, St. Louis, ready to receive their initiation fees and one year's dues, payable in advance.

SHALL we let the Association go under?

No doubt a great many have decided this question in their minds, but we hope not; sometimes it is good for us to remain in a state of torpor for awhile in order that we may gather our thoughts, and be better prepared for action when the proper time to act comes. We trust to see the day when the officership of the National Photographic Association will take up the cudgel, and will try and whip the members in to their interests in the matter. The Association has done too much good to be allowed to go into decline, and sooner or later we must resuscitate it. Do you not think so? Give us your opinion.

AN ERROR.—There must be a very prevalent mistake as to the officership of the National Photographic Association, and particularly as to the offices of President and Permanent Secretary. We have had several inquiries on the subject as to what the real truth is, and we give it below by quoting section 5 of article 3d of the constitution, as follows:

"The Permanent Secretary shall keep fair and correct minutes of the proceedings of the meetings, and carefully preserve on file all reports, essays, and papers received by the Association, and shall be charged with the foreign and scientific correspondence, and with the editing, publishing, and distributing the proceedings of the Association under the direction of the Executive Committee. He shall also be charged with the superintendence of the 'Bureau of Information.' He shall notify every member of the time and place of each annual meeting; he shall be a member of the Executive Committee."

It will be seen that there is nothing in this which either requires or permits the Permanent Secretary to be Secretary also of the Executive Committee, or the President of the Association to be President of the Executive Committee, and, therefore, there is no warrant for the officers proper of the Association claiming any officership in the Executive Committee. The Executive Committee has always elected its own officers, and nearly every year has elected a gentleman as its President who was not the President of the Association, and on two occasions has elected a Secretary who was

not the Permanent Secretary of the Association, both of which Secretaries served for a term or terms of office.

We trust this explanation will set at ease those whose minds seem to be at a state of unrest on the subject. If they are disposed to study up the constitution, they can get copies of the Permanent Secretary, whose address we give above. (See opposite page)

#### The Rotary Tendency of Stops.

WE are not yet sufficiently conversant with the scope of the inquiries of the Photographic Investigating Club, which meets in St. Louis every night, to know whether or not the philosophy of the rotary tendency of stops and their comparative obstreperous propensities comes under discussion as well as other matters; but if it does indeed, fall within the province of this comical society, we trust they will pay some attention to a subject which has been sadly neglected and overlooked, if not, perhaps, despised. allude to the tendency of the well-known stop or diaphragm to oscillate and rotate under peculiar circumstances. An attempt has been repeatedly made to cultivate information concerning the camera-box, and the tripod, and other portions of apparatus of less advanced qualities than the stop; for example, we know how the tripod will sometimes kick and straddle, and actually refuse to do its duty, and we know the effect of an attack upon a camera by a maddened bull, or how truly helpless it is in a gust of wind; but we have as yet little information on the subject which we suggest for discussion.

Poets have written eloquently and do write eloquently every month about the designs of photography proper, and how the people should patronize it, and we have had much of beauty and eloquence in this direction. The same poet, if a young lady's nose needs greasing, or her cheeks to be powdered, gives vent to a self-asserting sentimental flow of language which is truly surprising, and all the human race, except the Japanese, have combined to laud the praises of photography without any stop.

This is an unquestionably hard case, for what should we do without the diaphragm?

It does, it is true, sometimes restrict our abilities, but it brings us a compensating reward in the matter of sharpness and snap in our pictures, which enables us to overlook some of its faults. But it seems to have a propensity under certain circumstances (which is as dear to it as the love of moonlight, and the gentle hush of midnight to the enraptured lover,) for circular composition. A stop is as fond of its rotary ability as if it were a Chinese or Bedouin acrobat, and is sometimes as full of electricity as the State of Missouri will be when the rotund and jolly editor of the Comic Heliotyper will be when he is "done with" his "echo"ing staff and proceeds "East" during dog days. The rotating propensity of the stop has been awfully neglected, as well as ourselves, and if it should be studied under the circumstances which we shall detail presently, some great scientific truth may be brought to light.

When it is studied and observed by the society we have mentioned, they will notice a great resemblance, which will almost startlethem, between the rotation "humana" and the rotation "stopiana," and this likeness will impress itself upon every one who attends upon the intellectual seances of the solemn body already mentioned. In the performance known as the "trapeze act," the stop supersedes anything human, although the similarity is so close as to make them almost identical; yet when the stop is at its full height of speed it can scarcely be eclipsed by any pair of legs with which we are acquainted. The undeveloped possibilities of the rotating power of the round stop will be revealed to all those who take pains to go through the experience which we have had, provided the cultivated lobes are brought into requisition, and proper observations are made; considerable cultivation and quickness of thought will be necessary, and there will be no use in those who cannot read the constitution of the National Photographic Association correctly in making any effort to make comments on this subject. We do not ask them.

In the rich eloquence of motion and power of procedure, and the ebb and flow of tinkling sound, and the pertinacity of purpose, and the pitch and plunge and vehemence of action, and beauty of curved lines, and desperation of plunging, and in that angelic element of disposition which pervades all those who insist on having their own way despite of all efforts to the contrary, and in the lack of generosity and entire selfishness which is shown by the stop to such a degree as to ignore its entire nature, and to render it unfit for the name which it bears, the stop excels above all other creatures.

The motion which it attains should certainly be utilized and devoted to some useful purpose, and this is the point that we suggest for investigation,—How can this power be utilized?

The circumstances to which we allude we have ourselves experienced, and, perhaps, others have done the same. To us it occurred while on a photographic health trip among the mountains and the ravines. We had made several exposures with our stereoscopic camera and lenses; we used the smallest diaphragm or stop; our tripod had been propped at its feet by sundry shapeful rocks; our camera was well fastened with cord, and our focussing-cloth was tacked to our box; our groundglass was hinged; our holder, when not in use, was placed in a little receptacle from which it could not escape; but, alas! our stops were merely slid into the slots of the lens tubes, and as our lenses were not of the Zentmayer or Globe manufacture, we were privileged to make the observation which we now record. Upon ending our exposures, we seized our camera and tripod to carry them back to our carriage up the hill. The scene of our tribulation was upon a rock, at the foot of which was a curious bed of sand perhaps some thirty feet below, and the sand was washed by a beautiful river, cool and refreshing. As we seized our apparatus an unlucky turn caused the stops to fall from their place, and to start on a rotating expedition downwards on the ridge of the rocks. We dropped everything and ran frightened after them; they also ran; one now gained upon the other, and vice versa; occasionally a small rock in the way would be struck, from which they would leap in unison, tinkling and tantalizing us as we followed them. We made sundry grabs at them, and when we put our hands where they were, like Paddy's flea, they

were gone; we still followed, making our observations meanwhile, until we had all attained too much momentum to stop, and together we went over a large rock, and stopped not again until we reached the shining sand below; we there stopped the chase, and were privileged to conclude our observations. But do you think those stops stopped?—not at all. Not content with their exploits and our dismay, they continued their course through the sand, and leaped into the river, giving one last excruciating rotation which we shall never forget. We see them now upon the gravel-bed of the amber water, twenty feet down!

The rest of the story is quickly told; the remainder of our journey had to be made without our favorite stops, and a consequent digression in our subsequent negatives, which shall always be a source of chagrin. But we now leave the subject with our scientific brethren. The science of rotation rests upon the lines of motion no doubt, and if stops can rotate, their rotation should be put to some useful purpose or else brought to a stop. We have seen how much power the rotation of stops is able to command, inasmuch as they may carry off a moderately sized slender man, and if they can perform such operations as this, it seems to us there is an inherent power there which the useful men of St. Louis should be able to work for their own and the nation's good. An object which has all the abilities which we have described, should not be suffered to waste its powers in the dreary realms of photography; it might be made to work the elevator, and not only carry anxious patrons to the skylight, but be useful to the people occupying the four stories below.

It is a subject which commends itself to the benevolent and the photographer equally. The Society for the Prevention of Illiterate and Libellous Articles in Photographic Magazines and Cruelty to Editors might well take hold of the subject; there is no object more worthy of its endeavor to be presented. Of course we do not desire to intrude any subject upon the attention of the societies we have named, but this is the season of the year when proper observations can be made, and if these

societies could, without too much trouble, manage to give a suffering community the benefit of their opinion on this matter, it would certainly earn our gratitude, and we will gladly present them each with a year's subscription to the *Philadelphia Photographer*, and a copy of each of our books, provided we have the exclusive right to publish their conclusions.

#### THE MATTER OF PRICES.

WE are glad to see that Mr. Cadwallader's paper is exciting considerable discussion, and we have from different correspondents, both of whom are in high standing in photography, views on this subject which are entirely at variance with each other.

Mr. Decker, of Cleveland, Ohio, argues against a decline of prices, and he is a gentleman who has had experience in charging the very best of prices, because he makes the work which deserves it. Mr. Chute also stands pre-eminent as a photographer, and has had practical experience, both while in business for himself and as an employé, and his remarks are worthy of serious consideration; for he also makes work second to none.

There is much to say on both sides, although as a journalist we have erred, perhaps, in taking too much of a one-sided view, namely, in favor of good prices. We should all, however, be clearheaded enough to ask ourselves what experience says in the matter. We are very strongly in favor of maintaining the dignity of our profession. We condemn the practice of photographers calling themselves artists; there is no title which we should prize more, feeling as we do now, than that of a first-class photographer. To the winds with the artists and their easels and pallets! Outside of our enjoyment of the beautiful results which they produce, as long as we are a photographer, we want to be one of the best of our time, and are content with whatever honor the title brings.

We should not, however, wish to belong to a fraternity that may be considered by the public as a lot of restless strikers, sisking more for our work than its quality warrants, and refuse to work unless our price was paid; we do not consider this by any means dignified.

We have stated in our article last month on the subject of the "Training of Experts," etc, our belief in skilled labor, and we reiterate it here. A photographer comes into the market and the public questions him very much as it would any other laborer, and the manner of questioning we may illustrate by the quotation from a sermon on the strike and its lessons, preached some time ago by one of our distinguished divines, as follows:

"Now, a man comes into the market, and you say to him, 'What have you to sell?' 'Two hands,' he says. 'What is in them?' 'Nothing but strength.' For this he will be paid a small amount, it may be a shilling or fourteen cents an hour.

"Another man comes into the market. What can you do?' 'Heave dirt.' An ox or an ass can beat a man beaving dirt, and if you sell mere muscle with just enough intelligence to enable you to use it, you must expect to be paid accordingly.

"Another man comes into the market. 'What have you in your hands?' 'Some skill.' 'What is skill?' 'Brains.' 'Then you have some brains as well as muscle?' 'I have, and I can do skilful work.' He can go up and take higher wages, and command more respect. The wages of a man go with the manhood that is in him, and not with the animal-hood that is in him.

"Another man comes into the market, with his hands and has great skill. 'What have you in them?' 'I have great power and great experience, and great skill.' He stands still higher; he draws still higher wages; he has rarer fruits of his labor and more of them. It is the amount of mentality which men put into their work that determines their place, their wages, and their honor; and there are reasons for this which lie deeper than the speculations of modern political economists. Such is the American doctrine."

Is it not so that this is the correct doctrine, and that the photographer who can bring the most skill is entitled to the best prices? We do not think it would be fair

or just to adopt a scale of prices which should rule everybody's action, but we do think that each photographer should judge of the prices he is entitled to for his work, the same as each publisher decides upon the prices which he shall ask for advertising in his pages.

There is one thing, however, which we should all consider: our country is now going through a process of "shrinkage," and a good deal of precipitation occurs A great many people, in all classes and professions, are going to the bottom, and the residue is not worthy the attention of Mr. Shaw or any other saver Those who are able to stand of wastes. must be content with less than they have heretofore enjoyed, and inasmuch as photography must share the fate of the general public, photographers must also, some of them, be content with less advantages and perhaps less prices than they have heretofore had, for the reason that the public itself must do with less, and spend less for everything, including photography. Each one of us, therefore, should decide for ourselves what it is our best interest to do. There is a limit in both directions; prices should not be too low, neither should they be too high.

Make your work worth all or even more than you get, and do not stand in your own light by charging too much, yet charge enough to enable you to afford to make the best of work.

#### A FEW QUESTIONS.

Isn't "hard times" quite as much the result of low prices as the reverse? In other words, are not the "times" better when all are well paid for their labor than when they are only half paid?

The foregoing as a general proposition, and now to make the application to the business part of photography. Does it make the "times" any softer to make card photographs at one, two, or three dollars per dezen (and larger ones in proportion, as a certain advertisement worded it), than they would be if five or six dollars were charged? Is it possible that there are any so unreasonable as to think that there would be four

times as many photographs made at one dollar per dozen as at three dollars, or two and a half, or three times as many at three dollars as at five? Would not the proportions have to be as great, if not greater, to pay the same profit? Would it not be better both for the photographer and his customers if less work was done and better work made? "What is worth doing at all, is worth doing well," and as human nature is human nature in all professions and trades, are we as likely to try and make as good photographs at one dollar per dozen as at three, or at three dollars as at five or six? Such being the case, who is benefited by the foolish custom of lowering prices when business becomes a little dull? Say that the photographer has been making good work, and charging five dollars per dozen for his card photographs, business becomes somewhat dull, and he lowers his price to three dollars, what does he gain thereby? He may do more work, and it is quite possible that he will, particularly if his competitors do not lower their prices in proportion, but if they do, what then? He has "bitten off his own nose to spite his neighbor." But has he done it? Will he not also lower the standard of his work, either intentionally or unintentionally? At any rate his customers will say one of two things, either that he has heretofore been charging an outrageous price if he can do as good work now at the lower price as before at the higher one, or that he cannot do as good work at the lower rate.

Good work will always bring good prices, and will pay both in profit and in satisfaction. I have found it so, and am certain that others will also if they will try it faithfully.

D.

#### PRICES FOR PHOTOGRAPHS.

BY ROBERT J. CHUTE.

In the August number of this journal, Mr John Cadwallader discusses the question "Shall Prices Come Down?" and says it "is forced upon us by the stringency of the times." He then goes on to argue in favor of what has always been the popular side of this question, viz., that of high

prices. Now I propose to incur the odium of advocating the other side of the question, and shall endeavor to show that justice, necessity, and expediency, are on the side of a reduction in prices.

In these stringent times what is the tendency in all kinds of business? Is it to raise prices? Are the goods that are kept at the highest figures in the greatest demand? No; the tendency is all the other way. Prices of everything have come down except photographs. The men in any business who are doing anything are those who have put their prices down to the lowest figures. times demand it, and shrewd business men are not slow to see it. It is a matter which no man or set of men can control. It is subject to the law of supply and demand, and, in times like these, when the demand for photographic productions falls off, the supply becomes in excess of the demand, at the prices that have heretofore ruled, because people have not so much money to spend, and in order that the same amount of work may be done, there must be a corresponding reduction in prices. The present scale of prices, such as given by Mr. Cadwallader, is the inflation prices of wartimes, twelve years ago, when nitrate of silver was from twenty-three to twenty-five dollars per pound; alcohol four dollars per gallon; albumen paper, from forty to fortyfive dollars per ream, and all other photographic goods in proportion; besides, all the necessaries of life were much higher than now, and in those days there was a demand for photographs that justified the high price.

But it is said we compromise our dignity as artists, and cannot afford to take pains to produce fine work at a low price. Not at all. The man who looks for a situation at three dollars per day, and is reduced to poverty and distress, with his family, because he feels that it would be beneath him to accept two dollars per day, which has been offered him, is not held in any higher esteem by his friends or the public because of his efforts to maintain the dignity of his position, but rather is he all the more respected if he accepts what he can get, and provides as best he can for himself and family.

This talk of the dignity of our art consists not so much in getting a high price for indifferent work, as in producing a class of work that will command a good price. The dignity of art is not compromised because thousands of oil paintings are every year sold by auction in our large cities, and many of them at very low prices, nor do the artists whose work thus goes under the hammer relax any of their efforts to improve themselves, and turn out artistic productions in keeping with their highest conceptions of art.

To keep up the prices of photographs may be very desirable, but no discussion of the question, or combination of photographers, will do it and leave a paying business to the great mass of the fraternity, at a time like this, when there is no demand from the public. The better way to insure good prices is for photographers to combine to produce work of the highest artistic merit, that will command a good price with an active demand.

Now, in regard to the justice of a reduction in prices, to which I referred. It is due to those in business who are suffering from the want of business; it is due to the public, who would gladly have work done, but cannot afford it because the prices are so high; and, more than all, it is due to the hundreds of operators, printers, mounters, and the help in every department, who are out of situations on account of the dull times, but who would nearly all find work if the prices of photographs were so reduced as to give an impetus to business.

A reduction in prices is a necessity, if many of our most deserving and painstaking artists are to escape financial embarrassment, or perhaps bankruptcy. The men who do cheap work are getting the business, because people can afford to patronize them, while he who is striving to make a reputation without joining the "cheap Johns," cannot get money enough to pay his rent.

A reduction is expedient, because it is a legitimate way of meeting the question of what are we to do? To reduce the prices with the understanding that it is only to favor the stringency of the times, and that they will be raised again when times are better, will induce people to have work

done that otherwise might put it off, just as many enterprises of constructing and building are being carried forward now by energetic men, because material and labor are cheap. If any man or firm has plenty to do at present prices, there is no call for a reduction in his case; the demand justifies the price; but such cases are extremely rare at this time. Is there, then, any justification for an effort to maintain high prices?

I raise this question and argue on this unpopular side of it, because I am in a position where I cannot be charged with any mercenary motive, as I am only an employé, and have no reason to expect any immediate advantages which might result from a reduction of prices, but on the contrary more hard work; but I am impressed with the belief that our whole fraternity is suffering from this mistaken notion of keeping up high prices during these dull times, and especially that class who, like myself, are dependent upon the proprietors for situations, and who during this depression are being thrown out of employment, with but little hope of finding anything to keep them from want and suffering during the coming winter. It is in the interest of this class that I have taken up this subject, believing that a reduction in prices is the only course that will save us from a far worse state of things than we have yet seen. As Mr. Cadwallader has given a scale of prices which has come down to us from inflation times, only a little more inflated, if anything, as his prices for all work above cabinet size are much higher than are charged by some of our first-class Eastern photographers, I will conclude by offering a reduced scale, which, with the additional business it would bring, could be adopted with profit to the photographer and satisfaction to his customers:

Card	s, one	dozen	,			\$3	00
	hal	lf-dozer	١,			2	00
6.6	du	plicate	dozen	,		2	00
Cabi	net, o	ne doze	n,			6	00
,	'' b	alf-doz	en,			4	00
	· · 0	ne,				2	00
(	" d	luplicat	e doze	en,		4	00
4-4,	one,					2	00
4-4,	duplic	eate,				1	00

8x10, one, .			\$ 3	00
8x10, duplicate,			1	50
11x14, one, .			5	00
11x14, duplicate,			2	50
14x17, one, .			10	00
14x17, duplicate,			5	00

## A PHOTOGRAPHIC EDUCATIONAL INSTITUTION PROBABLE.

WE are not at liberty to give full details at present, but we are permitted to say that there is some prospect of a dream, which we have long had, being verified, namely, the establishing in this country of an institution where photographers may resort, and obtain a thorough course of instruction pertaining to the various branches of their business, such as chemistry, physics, art principles, and photographic practice proper. A corporation, which is doubtless able to carry out the project if undertaken, is canvassing the matter, and we shall probably be able to issue their announcement in our next number.

The plan is, to have courses of lectures by some eminent professors in the various colleges, including, as we have said, lectures on chemistry, physics, artistic anatomy, composition, the education of the eye, and photographic practice in the various branches. Added to this will be a skylight of large dimensions, where a number of pupils may practice in the varied branches of the art, located also where they may work in and out of doors, and where the pupils could have the opportunity of studying the art collections of two or three of our best institutions in America, including the famous new collection of the Pennsylvania Museum and School of Industrial Art, whose headquarters and museum are now in Memorial Hall, Centennial Grounds, Philadelphia.

It is also expected that a course of lectures, to be delivered under the auspices of this latter institution, will be available to the pupils, and that an arrangement will also be made with the Franklin Institute Drawing School for a similar privilege. The fact is, Philadelphia is full of these advantages, and it is the purpose of the projectors of the photographic school to secure all that will be useful and needful for their

pupils. We earnestly hope that the project will be carried out.

Our present writing is to sound the feelings of the fraternity on the subject, and to ask an expression of opinion from some of them, and especially to find out, if possible, what encouragement might be expected if such an enterprise is started. Photographers who have sons whom they wish to drill thoroughly in the art, cannot do better than to send them to this institution. Those who are dull in the winter-time, and who feel the need of more knowledge, will likewise do well to take a scholarship in it. We believe arrangements will be made so that the scholarship will be divided into a certain number of weeks, and that the pupil may begin at any time, and still receive a thorough course, though he may miss some of the local lectures.

The price of tuition, we understand, is to be moderate, the object being not to make money, over and above expenses, so much as to diffuse useful knowledge, and also forward the great work of photographic progress. We have now said all we dare say at present, and perhaps more than we have a right to, as our consultations in the matter were private. As soon as we are able to explain the full purposes of the enterprise we shall do so, and we will be glad to have an expression of opinion in the matter. The subject is open for discussion.

#### FRENCH CORRESPONDENCE.

August Meeting of the Photographic Society of France—Mons. Andra on Emulsions—Remarks by E. S.—Antiphotogenic Color à la Chrysoïdine—Mons. Davanne's New Apparatus for making Emulsions—On Mons. Gougenheim's Collodion and Developer—Ornamentation in Colors of Chinaware by means of Photography.

THE Photographic Society of France held their general meeting on Friday evening last, the 3d instant. The meeting was but poorly attended, being holiday-time.

Many fine proofs were presented to the Society by different manipulators, and printed by different processes. Mons. Andra, the indefatigable amateur, gave a very long communication upon the emulsion pro-

cess. He proved, beyond doubt, that it is preferable to soften the pellicles by alcohol before developing, because a great gain in the results is obtained, one of the most precious of which is a shortening of exposure. He presented to the members present several negatives, the half of which had been subjected to the alcoholic, the other half to the aqueous washing. The half which had been treated by alcohol was vigorous and wholly up to the mark, the other half was feeble, and, as it were, underexposed.

Mons. Andra continued by criticizing the employment of glucose for the intensifying of negatives made by the bromide of silver emulsions. He is of opinion that no advantage is to be obtained by its employment, and that, as to its being an accelerator, it is on the contrary, rather a restrainer. Now, for myself, I cannot agree with that gentleman on the last-named subject, for I find that the glucose gives me very good results, and intensifies far beyond what is required of it. It is true that I have made a little change in the formula.

If any of the readers of the *Philadelphia Photographer* would like to try it, I can warrant its success, having worked it with success for the last twelve months.

Prepare the following solutions:

#### No. 1.

Distilled, or Rain Water,			7700	grains.
Carbonate of Ammonia,*	-	. •	770	4.6

#### No. 2.

Distilled, or Rain Water,		7700 grains.
Bromide of Potassium,		471 "

#### No. 3.

Alcohol,				1540	grains.
Pyrogallie	Acid,			77	4.4

#### No. 4.

Distilled, or	Rain	Wat	er,		4620	grains.
Glucose,					770	6.6
Alcohol,					1921	6 6
Twelve dror	s of	Ammo	mia.			

<sup>\*</sup> The carbonate of ammonia which is to be found generally in small chemists' shops is not always good for developing purposes; it is absolutely necessary to employ newly made carbonate; this is easily to be seen; the pieces are hard, semi-transparent, having a penetrating smell of ammonia.

	140.	υ.		
Distilled Water,			7700 g	rains.
Pyrogallie Acid,			$46\frac{1}{2}$	8.6
Acetic Acid,			77	64
	No.	6.		

Distilled Water,		er.		7700	grains
Nitrate of Silver,				231	4.4
Acetic Acid,	-		0"	231	6.6

Take a small tray (very clean), sufficiently large so that the plate to be developed can lie easily on the bottom. For the 5 by  $7\frac{1}{2}$  size, pour into the tray—

Distilled,	, or Rair	ı V	Vater,		1540	grains.
Solution	No. 1,	**			154	6.6
+ 4	No. 2,			-	<b>T</b> 54	6.6

Begin by pouring a little alcohol over the plate in order to dissolve all the organic matter, and what is more, to soften the film, then wash under a tap until all greasiness has disappeared. After this preliminary washing, add to the bath, which is already in the tray,

Solution No. 3, . . 154 grains.

Mix thoroughly, and put in the plate; in about thirty seconds the image will make its appearance. When all the half-tones are come out, add 154 grains of solution No. 4. Not only will this addition bring out other details, but intensifying will begin. Repeat the addition of 154 grains of No. 4 every two or three minutes until sufficient opacity be obtained.

If by overexposure the negative will not intensify by the glucose, solutions Nos. 5 and 6 must be employed.

Wash the plate, and pour upon its surface a little water slightly acidulated by acetic acid. Wash again, and pour upon it a small quantity of No. 5; add to this from forty to fifty drops of No 6; pour on and off at will; in a few seconds the negative will be terminated.

Fix with hyposulphite of soda.

The chairman then called upon me to make a report on the new antiphotogenic color à la chrysoïdine, which I did as follows:

"Gentlemen: Mons. Bardy, at your last meeting, made a presentation of a new dye capable of rendering great service to

photographers by permitting them to work at ease in their darkrooms without fearing that the light should fog their plates and injure their work. I have since that presentation made many experiments with that dye. The plate now before you, of an orange-red color, was prepared on one of its surfaces with collodion tinted with chrysoïdine. An emulsion plate was put under a negative in a printing-frame, and that artificially colored glass was placed above the whole. The printing frame was put out on the balcony, and one part uncovered for five minutes, another part for ten, another for fifteen minutes. The dry plate was put into the alkaline developer, but no image made its appearance, whereas, if the plate had been exposed instantaneously without the interposition of the chrysoïdine, a good positive would have been obtained."

I then presented to the Society paper and gelatin films tinted with that antiphotogenic color; glass chimneys for gas and oil lamps, which can be easily colored by simply dipping them into the dye, and drawing them out slowly and carefully. I concluded by saying that the color à la

chrysoidine is the most antiphotogenic of all that I ever experimented upon, and that the photographic community are deeply indebted to Mons. Bardy for drawing their attention to its value.

Mons. Davanne, the vice-president, then gave the members some very interesting remarks on the difficulties he had to encounter in manufacturing emulsions. I have not space to dwell on these, but give my readers the design of a simple and most ingenious apparatus by which all these difficulties were overcome.



- 1. A glass bottle of any capacity whatever, intended to contain the bromized collodion.
- 2. A glass balloon for the solution of silver nitrate.

The two are joined together by means of a long cork. This cork is perforated, and a small glass tube fixed in the hole. Supposing that an emulsion is to be made, the bromized collodion is placed in the bottle and the cork introduced (as the cork is long, half of it stands out of the bottle); the nitrate solution is introduced into the balloon. The bottle is now turned upside down (as the glass tube is small, no liquid escapes if turned with care) and fitted into the neck of the balloon, which is immediately turned upwards. Now if the apparatus be shaken with force, at every movement a few drops of the silver solution is precipitated into the collodion, and the bromide of silver is thus slowly formed in the collodion. The shaking is continued until all the nitrate solution has made its way into the collodion.

One of the members informed the Society that he had experimented upon the collodion and developer as proposed by Mons. Gougenheim. Other members said they had had very good results also. One said that better results could be obtained by the omission of the sulphate of copper. The readers of the Philadelphia Photographer can try its merits.

#### COLLODION.

E	ther, .						8239	grains
A	leohol,						6287	4.6
C	otton,						170	4.6
D	ouble	Iodide	of C	admi	um	and		
	Potass	sium,					77	£ £
I	odide o	f Amme	nium	١, .			$61\frac{3}{5}$	6.6
I	odide o	f Cadm	ium,				38	4.4
В	romide	of Cad	mium	١, .			461	6.6

#### DEVELOPING SOLUTION.

Distilled Water,				15,400 g	rains.
Double Sulphate of	f I	ron	and	,	
Ammonia, .				770	6 6
Sulphate of Copper.				308	4.6
Acetic Acid, .				539	6.6
Alcohol,	٠	٠	٠	308	4.6

#### INTENSIFYING SOLUTION.

1.	Distilled Water,		7700 grains.
	Acetic Acid, .		308 "
	Alcohol,		1386 "
2.	Distilled Water,		1540 grains.
	Silver Nitrate, .		77 "

Mons. Bounand presented some very fine specimens of a new process of ornamenting chinaware by means of photography. It appears that the process is at once simple and easy in all its manipulations, the coloring is vigorous and pleasing to the eye.

PROF. E. STEBBING.

27 Rue des Aperrins, Paris.

#### R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 237.)

Almost all photographers occasionally stray off into paths that lead away from their accustomed photographic road. They, generally take a fancy to the making of stereoscopic views, and after having been fairly successful in the production of a few pictures, judge themselves to be experts.

Imagining their proficiency, they will waste time over every detail and probably spend five minutes or more in the cutting out of a pair of stereo prints.

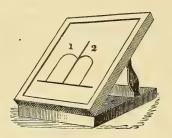
That plan of operations did not answer the requirements of the Centennial Photographic Company.

From the initial day of the season the Bergner cutters were adopted, as being the most rapid instruments with which to trim the pictures. No eyes, however good their capacities for seeing, can at a glance gauge the separate sides of a stereo. It was obviously necessary to place guide marks upon the negatives. These had to be most carefully adjusted, otherwise the effect of relief would be marred, and the complaint would come from the office that prints from negative numbered --- were not stereoscopic when looked at through an instrument.

The method of placing those register lines was for awhile a serious difficulty. A number of different plans were adopted from time to time.

Since I have the privilege of retailing my views, I shall only give the system that I prefer.

This was to make use of an ordinary retouching stand. Upon the ground-glass inclosed by it draw a few lines as shown by the diagram:



Place one side of the stereo negative on the ground-glass, over the indicated shape, and adjust it to suit the requirements of the subject. You will see that there is a perpendicular line. Note with the utmost exactness where that mark intersects the first half of your negative. Then slide your plate across the frame, and make the same perpendicular pass through exactly the same points on the other side.

I am forgetting that which is the most important part of the whole arrangement. The establishment of a base line. The doing of this is the first item to be attended to.

You can make use of any sharp instrument, and with it scratch a line across the bottom of your negative, being careful to make the line pass through the same points that are indicated on each side.

Again, I have forgotten to direct you, after having arranged your negative over the *shape*, to paste a piece or rather a strip of yellow paper along the edge that is in the diagram marked number 2

After moving the negative across the retouching stand and placing it as I have directed, that is, with the perpendicular pencilled line of the ground-glass showing through exactly the same points of the subject, paste another strip of paper along edge number 1.

You now have the negative with a line at the bottom across its entire length, and with a guide at each side. Prints made from it so prepared, will plainly show a black baseline and white uprights at each end of the strip. With such aids the work of "chopping" out with a cutting machine becomes but a mechanical arrangement, and the rapidity with which it can be accomplished

is solely dependent upon the dexterity or quick movement of the workman.

To the uninitiated it may be necessary to explain that the photographs as usually made from stereoscopic negatives have to be reversed in the mounting of them, the right-hand picture, as printed, will have to be placed on the left-hand portion of the mount, and vice versa.

To prevent all possibility of mistake it became the practice to paste upon a corner of one side of the plate a little star, that would serve as a sure guide to the mounters.

Upon the other side the name of the photograph was indorsed.

The putting on of this latter was, or rather is, a matter requiring considerable nicety of manipulation.

A line about the eighth of an inch in width must be cleared away upon the varnished side of the negative. Upon this space of bare glass you seal down with ordinary negative varnish a label that has upon it the name of the subject. In our establishment there were so many of these strips to be furnished that it became the province of one young man to attend to the production of them. The best quality of French paper was bought, that which I believe is known as "Onion."

The ordinary black ink used by pressmen was found to be not sufficiently dense. The type was therefore coated with sizing, and after the impression was made upon the paper it was dusted with a dense bronze powder. The labels, so prepared, when made transparent with varnish and stuck to the negatives, would print perfectly legible all the words that might be upon them. A small hand press, many varieties of which are sold, and an ordinary kit of type, was quite sufficient to enable us to do the printing.

I advocated the pasting upon the back of each picture a printed description of the subject. Mr. Wilson has accomplished the end that I had in view by a much better arrangement. He has written and published a little work describing tours among the objects and places of most interest to sight-seers. I advise those who buy a collection of the Centennial Company's views to provide themselves with one of these manuals.

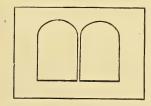
Although I have described that which we considered to be the best method of *shaping* or preparing stereoscopic negatives for printing purposes, I freely confess that my preferences incline me to another.

I believe in separating the double negative into two portions; then, in reversing their position; in attaching both halves to a piece of plate-glass, and in printing from them directly. The last clause has to be singularified (that's a long word, and quite original) considerably.

The two halves of a negative when cut apart, reversed, and again joined, will inevitably show a very disagreeable line of demarcation in the centre. Sometimes it is white, sometimes black; most frequently the jointure shows an indication toward both extremes. The difficulty is very easily remedied.

Paste the two portions of the stereoscopic negative that you have cut apart in reversed positions upon a good flat piece of glass. Upon the varnished surface of the plates attach a mask of non-actinic paper (send to my address and obtain some cut-outs adapted to the purpose), and print the double picture upon one piece without the necessity of after separation.

The shape of the mask is easily indicated:



I consider the advantages of this course to be very great.

There is no bother as to the reversal of the separate sides of the picture in the mounting of them.

The one continuous strip of paper pasted to the card prevents the inclination that the latter always has to break in the middle.

When you paste a label upon the back of the mount the tendency of contraction is altogether obviated, and you can, without much difficulty, obtain a perfectly flat surface.

Speaking further of my own inclinations, I prefer the use of a mount rather dark or sombre in color. I remember seeing in our salesroom some stereoscopic pictures finished in much the same manner that I have been endeavoring to describe. Unfortunately I have forgotten the name of their author, but I believe that they came from Albany, New York. They were very pretty.

Negatives prepared as I have indicated could be readily printed.

One of our greatest troubles was in the carelessness of the employés, who would, against all remonstrance, scratch the plates.

I believe that, as a general rule, it would be well for the proprietors of large photographic establishments to insist upon their inexperienced printers having their fingernails cut to the quick.

There was many a valuable negative, often made through difficulty, destroyed ruthlessly by the carelessness of a printer.

Scratches once made upon plates are difficult to remedy.

The devices of rubbing in paints are partially satisfactory. Brushwork is to be depended upon to a greater extent.

The registering of the great number of plates was also a matter of importance. It required the services of one especial employé. Large books were provided with division lines, giving us spaces for the writing of the names of the subjects, the numbers by which we recognized them, and as well the number of all the plates made of any individual object.

In the storeroom of the building of the Centennial Photographic Company there has been a fortune accumulated in stock, represented by negatives.

Of some favorite points of interest it seemed impossible to supply the demand for pictures.

As an instance, I remember being commissioned to make "at least" one hundred negatives of the "Corliss engine."

Some of the pet statues were equally as much in vogue, and of the one so well known as the "Forced Prayer," it seemed impossible to obtain enough reproductions.

Negatives having been made, retouched,

and shaped, were handed over to the care of our genial friend, Mr. Bridle.

He used to have his mind fully occupied. It is scarcely necessary to tell any photographer that the supervision of the use of fifteen hundred printing-frames daily is no small task.

I have spoken of our manner of silvering the paper for printing purposes. The methods of exposure to light are sufficiently familiar to all having anything to do with photography. Maybe, however, there are a few points to comment upon in connection with that subject.

There are very few negatives made at the present time that will bear exposure to a full blaze of sunshine. The reason of this is by no means that the old class is not capable of being reproduced, but that we have discovered that "ironclads" are, after all, the best thing in the world.

A plate bearing upon its surface a delicate film, is that which we now esteem the most desirable.

To print from such a one, it is necessary to provide against too strong or quick an action of light. The plan is to supervene between the negative and the light a screen of some description.

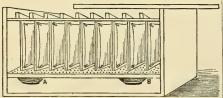
Tissue-paper will answer. Ground-glass will also do, but glass covered with "Hance's substitute" will answer the purpose better.

The priming with ammonia of the paper I have not yet spoken of. The number of sheets consumed required rather extensive preparations for the purpose. The appurtenances were simple.

There were long boxes provided with sliding-top covers.

Immediately underneath these, on each side, there were strips of wood capable of sustaining a number of stretchers, upon which the paper would be tacked.

A little diagram will illustrate the idea.



Underneath there was a false bottom per-

forated with holes, through which the fumes of the ammonia, placed still lower down, could ascend.

The arrangement was most excellent, and answered its requirements admirably.

The toning of the pictures, as well as the washing of them, was a serious matter. There were three men toning, the one in front of the other, each day from morning until night. Pictures were supplied to them as fast as they could be provided. An intimate relation with one of the parties gives me the opportunity of furnishing more statistics.

He tells me that during one day, when he was *pushed*, he toned *four thousand* prints, and that his average would be three thousand daily.

This amount of work requires sharp practice on the part of employés. It requires as well the consumption of an enormous amount of material.

Since so few of you have the necessity of dealing in these very extensive operations, let me insert a receipt for a toning bath, than which there is no better.

Reducing quantities to that which we may term a moderate scale, take—

Half a gallon of water; add to it 60 grains of acetate of soda; 60 grains of ordinary salt.

This combination should be kept for a day or two before use.

When required, add a solution of chloride of gold, neutralized with bicarbonate of soda, the quantity to be proportioned to the number of the prints with which you have to deal. This direction may seem to be indefinite, and in truth it is so.

Then suppose that you buy a small bottle of gold containing that which they claim to amount to fifteen grains. Dissolve it in as many ounces of pure water. To the bath that I have suggested, add a couple of ounces of the gold solution, neutralized.

After the pictures have been well washed, and made red in water that contains some acetic acid, about one ounce of the "No. 8" acid to the half gallon of water, proceed to tone.

I ought to refer more to this acidifying of the prints. When such large quantities

had to be dealt with, the process became a very disagreeable one. I was told by one of our men who attended to that work, upon one occasion after reaching his home he was totally unable to make use of his hands, and had to be undressed by his comrades.

I am not well assured of the necessity of this reddening of the prints before toning. I have most certainly made good results without resort to the process.

It is very difficult to put into writing or printed matter explanations of such a process as the toning of a picture.

It is easily understood that the prints have to be immersed in such a solution as I have described, but there cannot be given a specific direction as to how long they should remain in it.

It is more difficult to comprehend why different portions of a sheet of paper, silvered intact, will tone so differently, that is to say, in regard to the length of time required for the operation when the various parts have been exposed under negatives of an average intensity. However, all photographic operations are uncertain, and the caprices which sometimes occur are inexplicable:

The fixing of the prints was accomplished in the orthodox manner of immersion in hyposulphite of soda and water.

The methods of washing and after-treatment are of sufficient importance to demand further comment in another chapter.

#### THINGS SEEN AND FELT.

PRICES.

BY I. B. WEBSTER.

"SHALL prices be reduced?" is the title of a song now being sung by many writers in the photographic journals. It being one of great importance to the people as well as to photographers, and considering the times, I am of the opinion that to harmonize all the elements, a very pretty and sweet melody will be required before all will join in the chorus. For the photographer it will be a dangerous experiment to cut down his prices much, even if times are hard. The evil effects are twofold: It lessens his profits and increases his expenses. Do you ask how this

When a photographer, who has heretofore stood well in his profession, turning out good work and getting, say \$3 per dozen for cards, \$3 for the first 4-4 print, \$7 per dozen for cabinets, and all other work in proportion, reduces to \$1 per dozen for cards, \$1 for first print 4-4 size, \$4 per dozen for cabinets, and all other work in proportion, it stands to reason that his profits lessen. At the same time his custom increases, and in order to keep up with his orders be must put on additional help, which, as a matter of course, increases his expenses. If the photographer could manage to keep his expenses down, then there would be some show for him: but the more work the more hands, and an increase in all other expenses. An increased amount of material of every description is used, and more space required to manipulate in. Some photographers will undertake to tell just what a dozen cards cost. I say they undertake to tell, but this is impossible, for contingencies may arise when one dozen cards will cost five times as much as the same number will cost under other circumstances. All photographers know this, so it is not worth while to enumerate or mention them. Suppose your orders amount to twenty dozen per day. At \$1 per dozen you would have \$20. There are twenty negatives to make from twenty different subjects, from the old grandmother down to the grandbaby, some three or four months old. In this twenty you will have every class of subjects, including every shade of complexion, from the "original African" to the "fairest blonde," of every age, of every class, from the most refined to the most uncouth, with tastes differing as much as it is possible, every one of whom must have satisfaction. To give full satisfaction, long years of experience are required. Nothing short of the highest class of genius can do this, and that is a commodity that is worth something.

This idea that all operators can get up a good article of negative, at the rate of twenty per day, is preposterous. Well, suppose you get them made, you need a good and smart retoucher to work them up in a day; then an active and successful printer has got his hands full to print twenty dozen

good cards in a day. Then comes toning, washing, mounting, and finishing. these require hands to do, and good smart intelligent heads to control the hands. this time there are other things to be done, such as waiting upon customers, keeping order all around, and looking after other When all this array of expense has been met, how much of the \$20 is left. to pay for the wear and tear of apparatus, furniture, clothing, etc., to say nothing about the worry of mind? Twenty dozen photographs are easily got along with in a day, when you get \$60 for them; but at \$20 it does not pay. It is much better to get \$20 per day for photographs at the rate of \$3 per dozen, for you do not require as much help nor as much material. I repeat that it is dangerous for a photographer in good standing to "drop" on his prices. Rather let him try every other means to keep up his business, and if all these fail, then leave the field and strive to get into something else. There is one class of people that call for and urge a reduction in the price of photographs, who are very hard to get along with. They are, in the first place, quite fastidious, and ignorant of all the rules of art. Demand to have their photographs made without shadow, both sides of their face must appear the same, and nothing but a black dress will do. They require to sit until they can see nothing wrong in their negative, giving the operator's judgment the go by entirely, for they are sure they have seen a great many negatives, and know when they look right. This is the class of customer that comes to the man who reduces his prices 'They never had a picture taken to please them, and now they have come where they can try and try again, all for one dollar. Three dollars per dozen for card photographs is little enough, and at the same time honest money can be made at it. If you can get more and be kept busy, why perhaps it is well enough to do so; but then I believe it to be fair to make good work just as low in price as you can afford to, for these are hard times and very trying upon the purse of the people of every class and distinction. No one is required to work for nothing, or at prices that are below the cost of the work; but then "fancy

prices" should be avoided in times like these. I give out these thoughts for what they are worth, hoping that they may be of benefit to some, by causing them to think also I will close this, adding that it is a mistake to say that the Philadelphia Photographer cannot be found in the hands of photographers, as can be proved all around here.

#### OUR PICTURE.

WE are at lastable, through the kindness of Mr. C. Gentile, of Chicago, to present our readers with the promised carbon or chromotype picture. We anticipated doing this some months earlier, but for various reasons Mr. Gentile has not been able to supply the prints.

It represents Lieutenant-General P. H. Sheridan, of the United States Army, and staff, Military Division of the Missouri. The distinguished General is seated prominently in the foreground, and will be recognized by all. As a composition picture it is one of Mr. Gentile's best efforts in this direction. But few of our readers have attempted to make pictures of this kind, for the difficulties are not a few. The modus operandi is no doubt well known, and is briefly this:

The drawing is first made of the composition in the rough, the various positions being fixed, and then the portraits are made in the skylight or in the field, singly or in small groups, and pasted upon a drawing-board after the plan of the original drawing, a background having been first painted in.

The whole is then carefully worked over and prepared for copying. The largest size published of this picture, we believe, is about 20 by 24, though large and small pictures can, of course, be made from the original. The size of the original picture we do not know. Inasmuch as we have taken a certain position with reference to the carbon process, it is fair we should not attempt any remarks upon this picture as a carbon picture. We place it before our readers to judge impartially as to whether it meets their expectations or not.

The present method of printing in car-

bon is to transfer upon an enamelled surface paper. Mr. Gentile certainly deserves credit for his pluck and persistence in the matter of prosecuting the carbon process during the heated weather. We know of a number who have purchased a license from Mr. Lambert, who have, as we early in the year predicted, been compelled to abandon the process on account of the tribulations of hot weather.

Mr. Gentile, however, has pushed on, and some of his results are before you. He has also written us a letter on the subject which we append as follows:

"The original picture from which the illustration is taken, is made 30 by 40 inches; was exhibited in New York, in February, and was awarded the first prize for composition pictures in carbon.

"The portraits were, of course, all taken separate, and so that the perspective would be correct when grouped.

"This picture was, made without any original sketch, and some of our best Chicago painters say that the group is excellent.

"The group is intended to represent General P. H. Sheridan and staff at some military post 'Out West.'

"The General is supposed to have just arrived, and he and his staff requested to sit for their photographs, and no attempt has been made to make it appear that they are doing anything else. The background is composed of some artillery that belongs to the militia of the State of Iilmois, who wear the same uniform as the United States regulars, consequently come in very a propos for a group to compose the picture of the General; of course the artillerymen were taken in the attitude of firing the gun, which they are doing in honor of the arrival of the distinguished visitor, and thereby giving action to the picture.

"The landscape background is made up from photographs from two different views in Arizona Territory; the right-hand, showing the tents, was taken at Camp Crittenden, in the heart of the Apache country, and the mountains in the background are the Santa Rita, near the borders of Mexico.

"One of the most important objects, a little in the rear of the staff of the General,

is the famous horse 'Winchester,' too well known to need any mention.

"So that the names of the officers composing the staff of Lieutenant-General P. H. Sheridan, of the Military Division of the Missouri, can be recognized, the following key is given.

"The name of the first officer on the right is Major Gillespie: the second, General A. Baird; the third, Doctor William C. Spencer; the fourth, General J. W. Forsyth; the fifth, Colonel Fred. Grant; the sixth (sitting), General P. H Sheridan; the seventh (without hat), Major G. A. Forsyth; the eighth, Colonel M. V. Sheridan; the ninth (sitting), General Drum: the tenth, General Delos B. Sacket; the eleventh, General Small; the twelfth, General Meritt, Colonel of the Fifth Cavalry (not now on the staff); the thirteenth. Colonel Moore; the fourteenth, Colonel Bridgman; the fifteenth, Captain Reilly; the sixteenth, General Holabird; the seventeenth, General Kilburn.

"The list of names given above are as they are known in society in Chicago."

#### PHOTOGRAPHIC NEWS.

THE DUSTING-ON PROCESS .- The editor of the British Journal puts in a plea for this process, having recently had some very satisfactory experience with it. He says, "The unwillingness of photographers to adopt this process arises, no doubt, from a fear of the difficulties to be encountered; but really those difficulties are infinitely less than are surmounted daily in other branches of the art, the chief being to secure freedom from dust and specks in the solution. In the matter of exposure but little trouble need be experienced, as a considerable amount of latitude is permissible, and great alterations may be made in the character of the image during the development. In adopting this method merely for an 'improvement of negatives,' the second-rate image may be formed upon either side of the plate, and in the majority of cases it will be the safer plan to use the reverse, as there will be then no chance of injuring the negative during the various operations necessary. The formula we are at present using consists of

grape-sugar and dextrin, each one ounce; water, ten ounces; dissolve and allow the sediment to settle, then filter carefully. When required for use, pour out a sufficient quantity; add an equal bulk of a forty-eight grain solution of bichromate of ammonium, and again filter. During the hot weather many will find a drop or two per ounce of glycerin an advantage in hastening on development, but we prefer the slower development as being more satisfactory. chromate of potassa gives a film with greater hygroscopic tendencies, and in very hot weather may be preferred to the ammonia salt; but for several purposes the latter is, we think, the best. A saturated solution of bichromate of potash may be substituted for the bichromate solution given above. Ordinary powdered black lead of the oil shops, roughly sifted, will develop well. We have obtained very good results with common lampblack obtained from the same source."

At the July meeting of the Paris Photographic Society, Mr. Gougenheim made known the formula and the manner of using of a very rapid collodion, which several members present declared they had already used with success. This collodion is prepared as follows:

```
Ether. . . . 535 c. c. (18 fluid ozs.)
Alcohol at 40°, . 465 c. c. (16 '' '')
Cotton, . . 10 gram. (154 grains.)
Double Iodide of Po-
```

tassium and Cad-

```
      mium,
      .
      5
      gram. (77 grains.)

      Iodide of Ammonium,
      4
      " (62 ")
      )

      Iodide of Cadmium,
      2½ " (38 ")
      " )

      Bromide of Cadmium,
      3
      " (46 ")
```

The silver bath is at 7 per cent., and the developer is thus composed:

```
Filtered Water, . 1000 c. c.
                                (34 fluid ozs.)
Ammoniacal Iron,
                     50 gram. (771 grains.)
Sulphate of Copper,
                     20
                                      11 )
                                (308)
                                       ")
Acetic Acid, .
                           6.4
                     35
                               (540
Alcohol at 36°,
                     20
                           6.
                               (308
                                       " )
```

The strengthening is done with:

```
Distilled Water, . 500 c. c. (17 fluid ozs.)
Pyrogallic Acid, . 5 gram. (77 grains )
Acetic Acid, . 20 " (308 " )
Alcohol at 36°, . 20 " (308 " )
```

The silver solution for strengthening is at 3 per cent.—Moniteur.

The British Journal, in commenting upon "modern negatives," tells us that the great difference between the negative of to-day and that of six years ago or more, is principally in a mechanical sense in their greater thinness, and, consequently, increased delicacy. This marked difference is attributed to the influence of retouching more than anything else. Before it was adopted to any extent, negatives were longer exposed, and more fully intensified, in order to get rid of those qualities of undue prominence of facial development; and untrue, because of the highly exaggerated representations of inequalities of flesh, texture, and color.

In the same sensible article alluded to above, the author further says: "Nowadays, however, every nerve is strained, so to speak, to bring out the utmost delicacy and softness, and to do this, a minimum of exposure is given consistent with the production of these qualities, with the necessary result of giving still greater prominence to freckles, and markings, and facial lines, and hollows, for all these can be taken out by the retoucher or by the most rigid stickler for touch, may be toned down to what is really exact representation, though we are really afraid such is human nature, that few care for such rigid adherence to the facts of the face."

THE Edinburgh Photographic Society has also made a canal excursion and had a good time. We do not know how it is abroad, but we know that along some of our American canals some of the most picturesque bits of landscape are to be had.

Eight Bashi-Bazouks entered a photographer's studio some time ago and helped themselves to cyanide; their funeral occurred in due course, and nobody seemed grieved.

A PHOTOGRAPHER claims to have made as good copies of pictures by night as by day, by means of a kerosene lamp, and three or four times the usual exposure. Yes; but, perhaps, he does not make very good copies by daytime.

In London a simple process is recommended to protect prints from the action of air and dampness, which is very ingenious and highly useful. The prints before rolling are covered with a composition made in the following manner: 8 grammes (123 grains) of white wax are cut into very thin and small pieces, and are dissolved in 60 c.c. (16 fluid drachms) of ether, which is readily done by slightly agitating the mixture; then 480 c.c. (16 fluid ounces) of alcohol are added, the whole being stirred with a glass rod so as to obtain a homogeneous mixture. A little of this solution is rubbed on the print, which preserves it from the action of the air, while at the same time it imparts a very pleasing polish in no manner injurious to the print.—Dr. Phipson, in the Paris Moniteur. This is not new .- ED. P. P.

THE bromide of copper recently recommended to the Photographic Society of London, by Mr. Abney, as a novelty, has been used, it is said, in America by Mr. Carbutt and others, since several years. Mr. Carbutt uses a solution containing:

Sulphate of Copper, 26.8 grammes (416 grains). Bromide of Ammo-

nium, . 6.7 " (105 ") Water, . . 600 c.c. (20 fl. ozs.).

This mode of intensifying is said to be as perfect as possible, giving satisfactory results with the weakest and thinnest negatives. It is especially recommended for

photo-lithography and plates in relief. The negative takes a very deep red color, which is not actinic. When it is yet wet it is covered with a coating of thin gum-arabic as a varnish.

CLOUD EFFECTS.—A Mr. Smith, of Llaududno, is offering to the fraternity abroad cloud negatives. Presently we shall see our landscapes, which shall come to us from England, France, Germany, and Italy, all adorned with English clouds of the same form and shape, which will be even worse than a certain picture which at present hangs in the Permanent Exhibition at Philadelphia, which has the same clouds repeated three times in one sky. We have often heard that nature never repeated herself, but somehow or other photography is equal to anything, and it has accomplished even this. Long live photography!

Mr. Grune, of Vienna, says that "iron spots" may be removed from fabrics by coloring them blue with yellow prussiate of potash, then wash with caustic soda, and follow with a treatment of oxalic acid, afterwards washing well with water; treated directly with oxalic acid only fresh spots disappear.

ALTHOUGH photographs in natural colors have not yet been successfully produced, still we have news of parties who continue to experiment in the production of negatives for the use of printing in colors.

## Editor's Table.

MR. H. C. NORMAN, Natchez, Miss., has just completed the fitting up of his new photographic art gallery, and it turns out a perfect work. Mr. Norman is fully supplied with all modern improvements in his art, and has mastered them. His gallery is designed to do perfect work, and all of his appliances being of the best and latest, he can safely guarantee, as he does, to do good work.—Natchez Paper.

In our last issue we had occasion to mention having received some beautiful examples of work

from Mr. G. M. Elton, and our blunder was in locating him at Elmira, N. Y., instead of at Palmyra, N. Y., the latter being the place of his abode. We gladly mend the error, for we do not want pilgrims seeking good work to go astray.

DR. VOGEL'S HAND BOOK OF PHOTOGRAPHY.—This is the best work in existence, and photographers who desire to study up cannot do better than to have it closely at hand for constant reference. We will mail it, on receipt of price, for \$3.50.

CARBON PICTURES RECEIVED -Mr. J. Loeffler, Tompkinsville, Staten Island, has favored us with a fine selection of cabinet pictures by the carbon or chromotype process, which are, as a collection, the best we have seen made under the so-called Lambertype patents. We become oblivious of the fact, however, that they are carbon prints, when we look into the feeling of the artist who made the positions. Mr. Loeffler has certainly improved very largely in this direction since we have had the pleasure of examining any of his work. His style is, of course, the German, and it is peculiar, and some of his child pictures, and pictures of young misses, are exceedingly fine in composition and lighting. He strives to select attitudes which will harmonize with the nature of the subject. In making up his positions the accessories are introduced judiciously, and with good taste, while the light is artistic in every instance. Our readers would do well to obtain some of his specimens and study them. Mr. Loeffler is another of those who have persistently stuck to the carbon process during the hot weather, and deserves great credit for what he has accomplished under such difficulties.

PICTURES RECEIVED.—From Mr. Rieman, with Bradley & Rulofson, San Francisco, we have received some specimens of their latest work, which are very excellent. They include pictures of actresses in various positions; of private subjects, and of groups of naval officers. One of Admiral De Hoursey and officers, of H. B. M. frigate "Shah," is one of the best we have seen of this kind.

From Mr. F. M. Spencer, of Mansfield, Pa., we have received a number of proofs from recent negatives, which prove Mr. Spencer to be what he really is, a progressive man. Mr. Spencer strives continually to improve, and is ambitious to make himself as good as there is as a photographer. He deserves success, and we hope has it.

Wanted.—We should like to trade for some copies of *How to Paint Photographs*, last edition. If in good condition, we will give other books, or credit on account of subscription for them.

Mr. George B. Rieman, Secretary of the Photographic Art Society, at San Francisco, is bound to make the meetings of their Society interesting and sends us an invitation for a meeting on August 7th, on which occasion a very attractive concert is to be the feature of the evening. It does not hurt photographers to study art in all directions, and so Mr. Rieman seems

to think practically. He has recently had a well-deserved bonor paid to him by the conferring of the insignia of the Star of Progress, with a diploma as corresponding member of the Société de Progrés, by Le Commandeur Cazeneuve.

BURNETT'S HINTS ON COMPOSITION.—It will be remembered that this is a work which cannot be purchased in its original form except in very rare instances, and then at a very high price. We have reproduced it entire by photo-lithographic illustrations, and will recommend it to our readers as the best book on that subject. A gentleman who purchased a copy a few days ago, came back to our office to tell us how exceedingly satisfactory it was, and how much service it was to him in selecting his positions as a photographer. This is the highest testimonial it can have. We will mail it on receipt of price to any address for \$3.50.

Spirit Photography.—Our friend Moore, of Springfield, M ssachusetts, in keeping with the spirit of the times, has been after a photographer named Brown, who professes to be able to make spirit photographs. Mr. Moore being an expert in making spirit pictures himself, was quite competent to expose the Brown trick, and Mr. Brown is no more in those parts, though he knows Moore better than he did. He begged hard to take his camera along, which he said was charmed, and which he could not replace in a year, but he was not allowed to do so.

HUDSON'S NEW DRY PLATE "COLLODIO-BROMIDE OF SILVER PRESERVATIVE PROCESS."—Messrs. Benjamin French & Co., of Boston, publish this process in circular form, and will be glad to send it to any who may apply for it. They likewise sell dry-plates prepared for use by Mr. Hudson, as well as the preservative, and the emulsion for those who wish to make their plates themselves. We commend the matter to those who are disposed to give this new method a trial.

Mr. W. T. Waters, of Atlanta, Ga., sends us a circular of his photographic stock depot in that city, which should seem very attractive to photographers in that part of the country. He also includes a catalogue of stereoscopic views sold by him.

"Mosaics," 1877, WANTED.—We are out of Mosaics, for 1877, and would like to have a few copies, if any one can tell us where they are. It seems to us that each year we find it impossible to print enough of this popular little book.



We have striven during the first half of 1877 to make our Magazine better than ever before. Our patrons tell us that we have succeeded. We shall now try harder still. Our first aim is to benefit our subscribers. We have always conscientiously taken sides against everything we believed injurious to their interests, and beaten it down when we could. Shall such a course be continued and continue to be supported? We have refused large sums for a contrary course, or even for our neutrality, and even now are battling against certain foreign secret processes which the holders desire to introduce here by our co-operation. Give us your support, substantially, and we will help largely to support and defend you. If it does not pay you, we do not ask you to take our Magazine.

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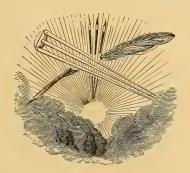
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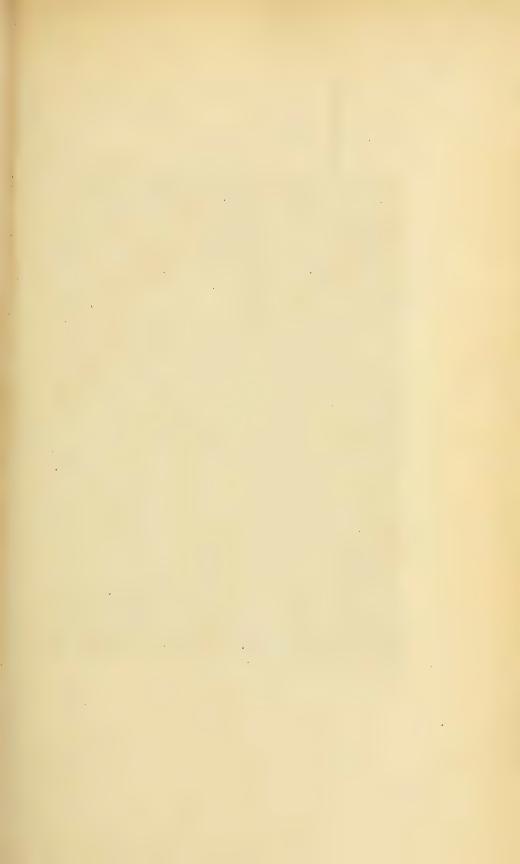


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Attorney at Law, and Counsel in Patent Cases.





"MISS SIMPLICITY."

# Philadelphia Photographer.

Vol. XIV.

#### OCTOBER, 1877.

No. 166.

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#### THE PHOTOGRAPHIC HALL FUND.

THOSE who were patriotic enough to subscribe for Centennial stock, for the purpose of erecting Photographic Hall last year, will be glad to know that part of their money is to be returned. So far as their addresses could be obtained, we have had notices sent to all subscribers to that fund, that they are entitled to a share of the distribution of the assets of the Centennial Board of Finance, and may receive a division of \$1.75 per share on their stock, with interest to January 1st, 1876. With this notice is a blank receipt, which must be signed and returned to Frederick Fraley, Esq., Secretary and Treasurer, 903 Walnut Street, and in return for which a check for the amount will be sent. Those who paid their subscriptions promptly will, of course, receive the most interest. We have good reason to believe that there will be a still further division of this stock, but doubtless smaller than the present one. Most of the subscribers, no doubt, had little expectation of ever receiving a dollar back; and no doubt it will come good to them for the payment of their subscriptions to their favorite magazine, or their dues to the National Photographic Association.

ographic Association.

Photographic Hall is now a thing of the past, but no one ought to regret having helped to build it, as it was an honor to our profession, and a great help in photographic progress.

#### OUR PICTURE.

THERE are times when the photographic artist would be guilty of indiscretion if he attempted to place certain subjects in other than the simplest and easiest positions, for there is a class who will not bear any fanciful arrangement of the figure, not because of any awkwardness which they may possess (for, on the contrary, some of those who look best in the simplest positions are the most graceful); but, looking at the model and the dress together, though the subjects may be sometimes very beautiful and graceful, we are baffled to contrive or invent a position other than that of the simplest kind, so as to gather in our picture all of the ease and grace and simple mannerisms which characterize our model.

Such a subject we have in our picture this month, and have therefore named it "Miss Simplicity." A moment's study will convince artists how silly it would be to place such a Miss in any glaring attitude or fanciful position; such an act would destroy all pleasure there would be in looking at the picture, and would be in excessive bad taste, causing the picture to look like a caricature, and not like the simple, guileless, and unconscious little maiden which we now have. To us there seems to be a beautiful harmony in the whole make-up, which is exceedingly lovely, and as we look upon it, all sorts of memories of poetry come up in our mind,

intensifying our admiration for this little picture. First, Longfellow speaks to us when he says:

- "Maiden! with the meek brown eyes, In whose orbs a shadow lies, Like the dusk in the evening skies!
- "Thou whose locks outshine the sun, Golden tresses wreathed in one, As the braided streamlets run!
- "Standing with reluctant feet,
  Where the brook and river meet,
  Womanhood and childhood fleet!"

If, as Mrs. Browning says of the "Court Lady:"

"Her hair was tawny with gold, her eyes with purple were dark,

Her cheeks pale opal burnt with a red and restless spark,"

she could not be more pleasing to us than she is; no, not even if she had

"Diamonds to fasten her hair, and diamonds to fasten her sleeves,

Laces to drop from their rays like the powder of snow from the eaves."

Rather would we have her in her sweet simplicity as she is.

How truly we think, as we look upon this picture, Mrs. Browning has said:

.... "Women know
The way to rear up children (to be just),
They know a simple, merry tender knack
Of tying sashes, fitting baby shoes,

Of the stringing pretty words, that make no sense, Of kissing full sense into empty words;
Which things are corals to cut life upon,
Although such trifles."

We confess a great fondness for making pictures of such subjects as this, and sympathize when working upon them, with Longfellow, where, in his "Children's Hour," he says:

"I have you fast in my fortress,
And will not let you depart,
But put you down into the dungeon,
In the round-tower of my heart.

"And there will I keep you forever;
Yes, forever and a day,
'Till the walls shall crumble in ruin,
And moulder in dust away."

And often, too, do we think, when privileged to photograph so much of grace and

guilelessness, how truly our favorite poet has also said, in speaking of the maiden,

"For a smile of God thou art."

The negatives for our purpose were made by Mr. Robert J. Chute, who assists us in more ways than one in the production of our magazine. The prints were made on Dresden "Single" paper, by Mr. H. C. Bridle. The lens used was the 4-4 Peerless, sold by the Scovill Manufacturing Company. We have no photographic information to give with the picture, since nothing extraordinary is used in its production, or any effort made to produce anything out of the way. On the contrary, if there was any especial effort at all, it was to carry out the title which we have given to the picture, and make everything harmonize with "Miss Simplicity." This same little maiden served us as a model for our picture in our issue for December, 1873, since which time she has grown in size as well as in ease and grace and simplicity.

#### ON THE SAVING OF SILVER.

BY ROBERT J. CHUTE.

An article in the June number of this journal treated of the "Collection and Recovery of Wastes," but there are some things to be done before the instruction in that article becomes applicable, and those are the putting in practice the various methods by which the so-called wastes are saved. It is a trite saying that "it is not so much what a man earns as what he saves," and as the margin for saving or wasting in photography is so large, the matter of saving becomes an important one.

It is well known among photographers that but a very small percentage of the silver used remains in the finished negative or print, and yet it is surprising to see how careless many are in their handling of the precious material, and how little effort is made to save, where saving is possible, or where it is no more trouble to save than to waste.

Men are governed mainly, no doubt, by their interest in this matter, and unless one has had a thorough training in economical methods, or has a prospect of personal benefit in the result, he will waste as soon as save.

Most proprietors of galleries are disposed to practice saving, but the difficulty is in getting help to look to their employer's interest in this direction when it requires a little more care, or an extra step to do it. The best plan I believe for all concerned would be, to make those who handle silver interested in saving by giving them a percentage of all they save. The man who has been in business for himself, and practiced this kind of economy, requires no inducements, as it has become to him a duty which forms a part of his daily practice.

The methods for saving silver vary with different operators, each adopting that which seems best adapted to his situation and the amount of silver used. The necessity for watchfulness and care commences with the first handling of the crystal nitrate, to see that no grains are scattered on the floor, and that clean, dry paper is used in the scales in weighing it out.

In making a bath the bottle should be placed on a broad sheet of paper (an old newspaper will answer), to catch any drops or drippings that might otherwise go on the floor. One will be surprised to see in a short time how this paper will be stained. It should always be used when the bath is filtered, and the bottles kept on it. pouring into the filter, or from one vessel to another, care should be taken to catch the last drop, otherwise this last drop runs down the side, and in handling the bottle the hands are sure to be stained. Some may experience difficulty in decanting the solution from a glass bath without waste. If not too large to be handled conveniently, it may be poured from one side with perfect safety, by pasting a little strip of albumenpaper close to the top of the bath where the solution is to be poured out, or a small cord tied around the bath near the top will serve the same purpose.

In the dark-room the shelves should be covered with paper, and especially near the holders, where it is well to keep a sheet of thick blotting-paper. If the holders be fitted with bottles, and plates used the full size of the holders, these may eatch the drippings well, if care and attention are exercised; but in the hurry of work they are unreliable, and much silver is lost. A bottle of the right shape has never yet been used. The only one ever made for the purpose is the traditional one with a hole in one end, which is always more ready to let the solustion slop out than to let it go in. A bottle with the opening in the centre and a slight neck to it, would be free from the objections. which have consigned the present style to almost entire disuse. But the cleanest way of working is, no doubt, to prevent any dripping from the plate. This is done by draining the plate well as it comes from the bath, then wiping the back till there is no solution to run. The plate being held on its edge on a sheet of blotting-paper during this operation, the solution drains from the film side, and when the plate is placed in the holder, a little strip of blotting-paper under each corner will absorb all further drainage. Instead of wiping the back of the plate, it may save time to have a piece of blotting-paper the size of the plate to place against it immediately it is put in the holder. Keeping the holder in a horizontal position while it is being carried from the dark-room to the camera, is also a preventive of dripping.

The practice of these methods may, from the recital of them, seem too troublesome to pay, but they are not really so when once they are put in practice and adhered to. They not only save a sufficient amount of silver to pay for the trouble, but they prevent the gallery from assuming the unsightly appearance which is the result of a loose and indiscriminate dripping, and from which the operator himself usually carries, both on his clothes and his person, the indelible evidences of his profession and slovenliness.

The next important point for saving is in the development, and here various methods are used. In the early days of photography, when many of its votaries, doing business in a small way, were obliged to carry their water from a pump in the yard to the third or fourth story, the washings were all collected in a tub, and every day the waste water drawn off, to be carried down as it had been brought up, or emptied out on the roof, to find its way to the ground by the conductors. These tubs formed excellent silver savers, though their real value was hardly then appreciated; and something of the same

sort answers the purpose admirably now. Where a large business is done a large tank should, of course, be used, and where there is not room to place it under the developingtank in the dark-room, it should be placed in a room below, or in the yard outside, if the climate be not too cold in winter, with a pipe leading to it. Over this tank the negatives are developed, and washed just enough to clear them of the developer and whatever surplus silver may be on the plate. Into this tank all washings of vessels that have contained silver solutions are poured. The developer is usually sufficient to precipitate all the silver, and by a waste pipe attached to the tank the clear water can be drawn off every morning, or when the tank is full, provided it does not fill more than once a day. Where a small business is done, a large dish or wooden tray may be used for the developer washings," or a developingtank constructed with separate apartments, one of which shall be used for this purpose. Into such a tank, or a separate dish, all the films from waste plates should be scraped while they are still wet.

The hypo fixing bath for negatives becomes well charged with silver after a time, and if well cared for will yield a good return. When this bath shows signs of failing—which are usually spots on the negative after fixing, though they are not of such a nature as to show in printing—it should be poured into a large bottle or earthen pot, a wooden tub or butter firkin will do, and as it becomes full add a quantity of a solution of sulphuret of potash, stir well, and let settle; the clean part may then be decanted, and the vessel filled again in the regular order of business.

As this completes the routine in the negative department, I will not extend this article, but leave the methods for saving silver and gold in connection with the printing, to be discussed in another paper.

## Industrial Art Education Considered Economically.

On February 15th, 1877, Professor Walter Smith, State Director of Art Education for Massachusetts, delivered an address before the House and Senate of the State of Pennsylvania on the subject of industrial art education, which was reported stenographically, and a copy is before us. We are so impressed with it, all of which we wish our readers could have before them, that we will make a running review of the address, trusting it may do some good.

In starting out upon the consideration of this subject, Professor Smith observes "that all labor may be divided into two very distinct classes, the skilled and the unskilled, with this difference in character, that unskilled labor is of very little comparative value, and is becoming of less and less value every day, while skilled labor is something of great value, and will be of greater value every day." And as soon as we recognize the fact, Professor Smith thinks that we have taken the first step towards doing all in our power to make labor skilled in the highest degree. Moreover, he claims that unskilled labor is always the most costly, and that the unskilled laborer is an unthrifty one, occupying more time, and using materials more wastefully in his work than is necessary, while his product is of less value than he would produce if he were a skilled la-

We all know how true this is in photography, while on the other hand, out of the same material from which the unskilled laborer produces an article of small value, the skilled mechanic produces one of great value, one for which he receives higher wages, and from which his employers realize greater profit, and the public more pleasure. Therefore, in proportion as we give our workmen skill in art, they become creatures of power superior to all others. "But," continues Professor Smith, "we find ourselves in this position, that the general education of the country has been developed to such an extent, and so large a proportion of our citizens have travelled, and acquired a taste for the beautiful, that we must be able to produce these beautiful things or else purchase them abroad.

"Education in art and science develops in the human race the divine faculty of creativeness. There is as much true education of a moral and intellectual kind in the study of the phenomena of the physical world and its echo, as there is in studying literature, laws, or theology of the dead races of men; and we recognize this in the world of fine art, clinging tenaciously to the refined influences of great pictures, statues, and buildings, and being educated by them. The æsthetic influence in education of the Greek marble from the Parthenon, is as pronounced and definite as that of Greek literature.

"The national treasures which a living people most faithfully guard, and are proudest of, are those in which art has triumphantly culminated. Indeed, literature and art seem to occupy an equal place in the hearts of the people, being more prominent than the race which produces them, and sometimes becoming its true posterity, representing it to future ages when all other signs of its existence have long since passed away.

"This human love of art and poetry Longfellow expresses in his apostrophe to Nuremburg, the ancient city:

'Not thy council or thy kaisers win for thee the world's regard,

But thy painters Albrecht Durer and Hans Sachs, thy cobbler bard."

It is somewhat significant that Albert Durer was both a painter and a goldsmith, since his pictures bore the name of "goldsmith," and his works in precious metals "painter," showing that industrial art was not beneath the attention of one of the greatest of fine artists.

Professor Smith claims that this matter of art education is not a fanciful one, and says: "I believe that we are to-day the only civilized white people on the face of the earth who have not taken up this question in the most serious manner, and given the greatest attention to it." Certainly he speaks the truth in this matter, with respect to photography, to say the least. He argues that the æsthetic gifts is not a heaven-born one, and that all the people may be taught the common basis of fine and industrial art, which is drawing. "There can be no doubt," he says, "from the common-sense point of view, that every healthy man is a possible artist, just as every intelligent man is possibly a literary man; but he must be properly educated.

"If we look for an explanation of the

superiority of French manufactures, we find in every city of any considerable size in France a school of art, and a museum of art; the skilled workmen are educated there, and trained there to a love of the beautiful, and learn from experience that this art education is not only an agreeable thing, but a profitable thing in their education and training for useful lives as citizens, and it seems impossible that we should ever arrive at successful manufactures here until we have similar agencies of improvement.

"In other countries where apprenticeships exist, and where great excellency in industry has been arrived at, it is a very common thing to record in the article of apprenticeship an agreement that the young man or young woman shall attend, in the evening, schools of art and science; it is a common thing for an employer to give higher wages to youths attending such schools than to those who do not so attend, on the ground that they are more competent and more profitable workmen."

We wish that we had space to reprint the whole of Professor Smith's admirable address. Copies of it may be had of the Secretary of the "Pennsylvania Museum and School of Industrial Art," at Memorial Hall, Centennial grounds, Philadelphia, in whose behalf Professor Smith delivered this address; his hope being to interest the lawmakers of our State in properly indorsing this admirable institution. We wish that all of our patrons would buy it, and well digest its arguments. There is no branch of industry or art which needs that its votaries should have a thorough artistic training as does photography; we lament over the lack of it continually. As Professor Smith truly says: "The stroke of a man's arm without the direction of the intelligence, is no more dignified than the kick of a mule," and certainly when looking over the productions which are sent to us by persons from time to time, we feel that it had been better if said persons who produced them had been kicked with a mule in early life, mortally and fatally; then photography would have had a higher position than it has yet obtained; but there is hope as long as there is life.

The "Pennsylvania Museum and School of Industrial Art" is now open to the public

in this city, and we would that every photographer who visits Philadelphia would make a pilgrimage there, of sufficient length to secure at least the opening of his lobes to the impressions of art culture. The day may yet come when some one may be able to open the way for an easy obtaining of such culture for photographers, and when such shall be spread abroad throughout the land, we shall not have to complain that the public do not patronize photography because we are unable to produce anything new, but on the contrary the majority of the pictures that are made shall be considered each and every one new and beautiful.

#### SCATTERED THOUGHTS.

FIFTH PAPER.

The acute sensitiveness that has sprung up in certain quarters concerning the durability of silver prints, has an amusing phase as well as a serious one; serious to see a man crying down his own wares, amusing as to the origin and object of the outcry. Regarded as confessions of weakness, it has discovered a very tardy sensibility of conscience, and no wonder that we unlicensed sinners stand aghast and dismayed, to be only just finding out that the remedy exists in the shape of an old nostrum that has nearly wrecked the financial health of several of the best American photographers in years gone by.

Twelve years ago I embarked in the picture business with no knowledge of it, no competition, and Professor Towler's Silver Sunbeam as instructor, and except an interval of six weeks in 1869, and a few months last year, have continuously pursued it at the same stand I now occupy, and to books and experience (limited, I fear) I owe what I now know. Now, considering this latterday hue and cry, I might fairly expect that the productions of my first few years would be "faded and gone," which would leave me a few months' supply of serviceable cards to use over, but our fond hopes oft come to grief. I find, considering my own ignorance, and the startling confessions of the "latter-day saints," that remarkably few have faded, none badly. I have a dozen stereo views purchased in 1858, nearly

twenty years ago; they were made in the days of the infancy of silver prints and gold hypo toning. Some were decidedly yellow when bought, but have retained their visibility, impaired less by fading than wear, and among them was one that was mounted on a dark mount, the tone and strength remaining to this day of a pleasing purple-The views are well-known Paris subjects, and I regret that no inscription ever told of their perhaps humble author. The point I want to make is this: That I long ago got more than my three dollars' worth of pleasure out of that 'scope and dozen views (no swindle there); that prints that will ever fade, soon fade, and that the probable cause of the fading was doubtless due to the mount; that one on a dark mount stands a solemn and veteran witness. that the mounts are always at fault; imperfect fixing or imperfect washing are both too frequently the cause. Treating the prints to alcoholic baths to prevent blisters while charged with hypo, I believe will prove disastrous, inasmuch as some of the salts must be imprisoned by coagulation of the soft al-Mr. Clemons claims that his alum bumen. bath eliminates all the soda while in the act of hardening the albumen, but I prefer not to harden the albumen more than necessary, as it injures the transparency of shadows and brilliancy of the print. I have a frame of thirteen prints exhibited at Cleveland in 1870, every print being to-day as fine in tone and pure in whites as when made, and the test has been severe, including more than a continuous exposure to direct sunlight for a year.

While I am not prepared to say that soap as a lubricating agent may, or does, cause fading or spotting of prints, I think it not only safer to avoid the use of alkaline compounds, but better to use white wax or paraffin. Make a saturated solution in ether, and add a sufficient quantity to the alcohol, an amount equal to 1 to 5 grains of the wax to each ounce of alcohol, and apply in the usual way. Use the burnisher hot; it is nonsense to suppose that the burnishing will make the prints fade; on the contrary, if wax or paraffin is used for lubricating, it protects the surface from atmospheric agents, and renders it more permanent.

To work pigments on albumen paper without destroying the gloss, take the white of one fresh egg, water one ounce; beat to a stiff froth, and allow to subside for one or two hours, then decant the clear portion into a convenient dish, if it be clean, and mix the pigments with it, and apply as usual. Probably a paste made of pulverized Indian red, or any solid color, in such a solution of albumen, would make a good substitute for Gihon's Opaque.

To return to the subject of fading of silver prints, and Mr. Webster's suggestion that photographers do their own albumenizing to avoid what he terms rotten-egg papers. Now the photographer must do a "custom-house" business to afford to albumenize his own paper; it costs too much for eggs, even at ten cents per dozen, to always have fresh paper, and do it yourself. It has been my fortune to pay Mr. Clemons's laboratory numerous visits to see the whole process, and I discovered that albumenizing is a trade of itself, quite sufficient to occupy and try any one man's patience. I always order my paper from him direct, and never fail to get a fresh lot, and what is more, it will keep fresh for months if kept in a moderately dry room. Albumenizers have noses quite as long, if not so keen, as Mr. Webster's, and I don't believe they want to stand day in and day out over half a dozen trays of rotten eggs. If photographers would buy direct from the albumenizer, and take proper care of their paper when they get it, we should hear of no complaint like that Mr. Webster "smelled" out in the August number of the Philadelphia Photographer.

Perhaps some one is ready to ask for my formula for working Clemons's paper? I believe any formula that will work any paper well will do. I believe the best positive bath for any paper is pure water, pure silver, 40 to 50 grains to the ounce, according to the season, and made slightly alkaline by ammonia; and should the albumen be disposed to dissolve into the bath, add alcohol (pure) until cured; it will not require much at any time (alcohol containing fusil oil ought to be rejected for any purpose, except as a convenient poison for a played-out class of "picter takers"; float just long enough to get strong prints, hang

up until surface dry, and complete drying by heat; fume from seven to fifteen minutes, print and trim, and tone in a bath of water enough, gold solution the same, but it might be well to tell right here how to prepare it. Dissolve a five dollar coin in muriatic acid, C. P., 3 ounces; nitric acid, C. P., 1 ounce; evaporate carefully to dryness, being very careful at the last not to heat the evaporating dish too hot, as a portion of gold will be decomposed and sent back to its "normal condition;" redissolve in 24 ounces of soft water, and filter, and add & drachm of muriatic acid and a tablespoonful of salt (sodium chloride). When ready to tone, pour enough of the gold solution to tone in about ten minutes, and neutralize with bicarbonate of soda; it will turn greenish color; it will do no harm; it clings like death to its oxygen, and goes to the bottom of the dish. Well, having done this, add enough water to complete the bath. Now a tablespoonful of salt must be added next and last, and then tone; no need to wait, providing the prints are well washed, and reddened by acetic acid in the first water, 1 ounce to the gallon, or 2 tablespoonfuls of salt dissolved in the last washwater but one: tone until all the shadows in the face clear up, and remove to a rather large tank of clear water, and when all or a sufficient number of prints have been toned, fix in a hypo-bath of standard strength for ten minutes, keeping the prints constantly moving, and completely covered by the fixing solution. At the end of ten minutes take up the prints all at once, and drain quite dry, or quickly pass through a clothes-wringer, and pass them to a strong salt bath, in which they should be kept moving from three to five minutes, when they must be removed to the washing-tank, and washed not less than five hours or over night if the water is cold, after which they may be mounted on Collins's mounts, dried and burnished, and delivered to the customer.

It would be well to keep a few samples, and after an interval of twenty years, send them to Lambert or Messrs. Anthony & Co., who no doubt will be out of carbon, and be willing to admit that silver prints keep pretty well.

F. M. SPENCER.

#### WRINKLES AND DODGES.

I WORK according to any of the wellestablished formulæ. I find any good working collodion and bath will produce the desired effect, if one has an eye for the beautiful and sees light and shade in its right intensity, and distinguishes the right lines in the right places, for this is what constitutes a picture. And then another thing is to work according to one's feelings, and throw yourself into the work without regard to what you are to get for your services; although sometimes the pay is hardly adequate to the means employed, and gives one but little heart to progress; but such is the life of one who loves his art, and must always expect so to be, unless he has a business man at the head of the establishment to look after the needful, which cannot always be on account of circumstances; but still you must keep up your courage or you fail. I will now give you some ideas how you can utilize your time, and get things to help make a picture. Backgrounds do much towards securing good effects; also rustic fences, which can be made out of any crooked sticks; and also rocks made of old boxes and covered with sacking, and then with cloth pasted on and sized with glue-size, then painted with oil-paint and sanded.

The backgrounds you can do by sizing your cloth with glue-size, with a little alum in it, but do not use this size to mix with your color; glue-size without the alum will work the best.

First, coat in your groundwork, then use your color weaker with glue-size, and all subsequent additions, until you have accomplished your purpose. It is full as well to draw in your design with chalk before taking in hand the color, if it is not handy for you to work without the chalk marks.

The colors best to use are raw umber, black, and whiting, mixed to your faney with glue-size.

I hope this will encourage some poor mortal like myself struggling for the mastery.

M. H. Albee.

WHEN in the field, immediately after dipping the plate, tip the bath holder at an angle of about 40° opposite the regular inclination, setting or leaning it against the

dark-box or tent (of course it must be tipped back again to its original position to remove the plate for the exposure); by so doing many a pinhole will be among the things that are looked for and cannot be found.

HINT.—If occasionally a cabinet or card picture will not take the gloss, breathe upon it freely, run it through the burnisher, and behold the *shine*. Should it be not produced the first time trying, repeat the operation after the picture has become cool; the desired result will then be obtained.

C. J. STIFF.

St. Paul, Minn.

The usefulness of a blotting pad of paper (or felt cloth) to back of negative, when in the plateholder, cannot be overestimated, saving the silver, the holder, and the floor; I also use a small piece of blotting-paper between the thumb and forefinger on removing plates from the bath. With these appliances and a manipulator (rubber sucker with handle), what use is there of getting silver on your hands? If you are troubled with broken cork in your varnish bottle, throw the cork away, and substitute the bottom of an ounce bottle. When varnish is wanted, break off carefully without disturbing the varnish, and replace while the mouth is still wet.

ALBUMEN AS A SUBSTRATUM.—In Photographic Times, September, 1875, is a receipt as follows: Albumen, 1 ounce; water, 8 ounces; ammonia, 1½ ounces; iodide of potash, 30 grains; bromide, 15 grains. Shake well, then fill up stockbottle with water, 8 ounces. This is worth gold. I forget the author's name.

E. T. Whitney.

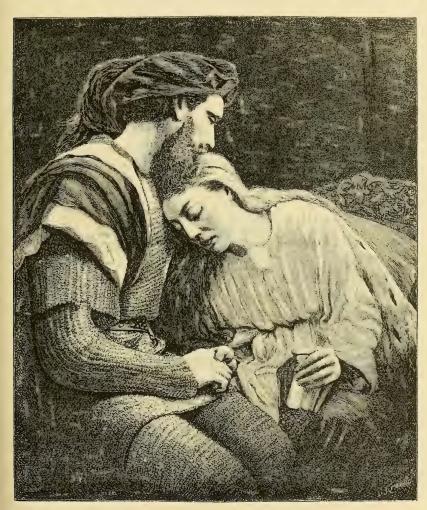
Take one ounce of turpentine and add twenty drops of balsam of fir, and you will have a retouching varnish putting benzine clean out of sight. Rub on the part you wish to retouch with a piece of cotton, then with another piece of cotton rub off the surplus moisture, allow a moment to dry, and rub again, and a nice retouching surface will be the result.

R. W. Dawson.

No \$5 you can invest will pay better than a subscription to this magazine.

#### LANCELOT AND GUINEVERE.

AFTER photography had passed through the experimental stage, and its sanguine votaries had succeeded in bringing it to the earnest attention of the public, and the first blush of enthusiasm over its accomplishment had subsided, more critical examination of The real fact of the case was, at least to a certain extent, that for various optical reasons, the lenses used by photographers falsify to a more or less degree, throwing the subject at times out of drawing, and again causing more or less distortion. Moreover, the excessive sharpness which one obtains



its work began to be made, and a more careful examination into the whys and wherefores of its excellence; and any one making a fair examination of photographs, say in his own family collection, could not but acknowledge there was a something about them which was unsatisfactory and unreal.

by means of the lenses causes the hardness so apparent in most photographs; otherwise . excellent.

Various experiments were made to overcome this, but without much success. If softness were aimed at, the result was too much softness, and the image appeared "feathery," or "woolly," to use a photographic term. A happy medium could not be found. At the Exhibition of the London Photographic Society, held in the autumn of 1870, were shown some very beautiful photographs, which were exhibited by Mrs. Cameron. This lady had made previous exhibitions of her work, but the technical qualities of her manipulations were so startlingly slovenly, in the way of dirty plates and torn films and blurred images and insufficient definition, that very few took a second look at them. Photographers particularly turned up their noses at them, and held them up as examples of the very worst photographs possible; and yet withal there was a mysterious quality about them which one could scarcely explain without analyzing them carefully. There was an amount of art feeling so suggestive that it claimed attention and admiration in spite of the faults which were apparent, and this very suggestiveness tempted many nebulous art critics to go into raptures over her work as something beyond the range of ordinary photographic achievement.

While said critics were enthusiastic in their praise, the photographic artist, so far as he was educated in art principles at that time, felt the more bound to protest against the technical shortcomings of Mrs. Cameron's work, for the simple reason that, if her results were to be recognized as something worth imitating, it would be very easy to reproduce the faults without catching any of the redeeming features.

The press criticized Mrs. Cameron very severely, and yet she persisted in her work on the principles which she had established for herself; and exhibiting, as she has each year since, it has brought an influence to bear upon photography generally which has been a most useful one.

The real secret of her method is in defeating the obtrusiveness of photographic detail, by putting her subjects out of focus. This gives them a massive breadth not unlike the gloom and obscurity of some old pictures.

She has been fortunate in securing fine models; and with these she has followed the subjects of the old masters in her composition and in her method of lighting, until she has given us some results that are more pleasing and harmonious than photography usually is, and has helped materially to establish for photography its coveted claim of being a fine art.

Some works of Mrs. Cameron were exhibited at the International Exhibition in Philadelphia, which are the best from her studio we have ever seen, and we trust that American photographers derived the full benefit of a careful examination of them.

There is something in the nature of photographic manipulation which prevents all the good qualities of art from being embodied in one and the same picture. only for the reason stated above, but in the technical manipulations of the plate, one must, in order to secure the softness obtained by Mrs. Cameron, neglect other qualities. Mrs. Cameron seems to work upon the theory that technical excellence is not to be considered when artistic results stand in the way; and while but few even approach her in their results in this special direction, a majority of photographers excel her in the other, so that with the purchaser it becomes a mere matter of choice as to which he will have-artistic excellence, or, so to speak, photographic excellence, in the shape of detail and sharpness and roundness and tone.

As it is impossible for the optician to produce a lens that will secure depth and correctness of figure in connection with rapidity, so it is impossible by the means now in the possession of photographers to produce all of the good qualities in a picture which we are taught by our art instruction to look for; but so impressed are we with the singular charm of Mrs. Cameron's work, that we have chosen one of her subjects for illustration in our current number.—Edward L. Wilson, in Harper's Weekly.

## PHOTOGRAPHY RECOGNIZED AS A FINE ART.

Do not be deceived, aspiring, young, hopeful patrons; it has long been your dream and our dream, that photography should be recognized as a fine art. Some of you have so far anticipated this as to call yourselves artists, and well you may, for you deserve it—some of you. But those who first had the claim to the name of "artist" have not

vet agreed that we shall come in and rank with them. We are very sure if Praxiteles and Titian, or Raphael, or Michael Angelo had lived in the days when photography was discovered, that palettes and brushes and chisels would have been cast into the depths of the Arno, or the Tiber, or the Mediterranean, and the camera taken up in their stead most readily. But as our child was born after their demise, we must wait and work patiently until their successors are made to act more sensibly towards us. But be cheered; the day is coming, though it comes slowly. We have recently had many evidences of this; we dare not begin now to multiply them. But briefly, we find publishers using photography more and more to illustrate their magazines and to reproduce works of art. We, however, hope for more than this. We want to see photography producing and originating works of art, and this stage has also been reached.

Messrs. Harper & Bros., the well-known and much-esteemed publishers of New York, deserve credit and admiration for the position which they have taken regarding photography, and the help which they have given it towards the desired end. During our great Centennial they made, early in the season, an honorable arrangement with the Centennial Photographic Company to photograph various works of art which they needed from the exhibition for their illustrated newspapers, and always gave photography its full credit.

To us this was of course a matter of personal gratification, but we wanted them to do more than that, and made a proposition to them, which they willingly accepted. was to give photography itself, and for itself alone, a push forward towards its recognition as a fine art. Our suggestion was, that a series of photographs exhibited in Photographic Hall be chosen for their artistic merits, and engravings made from them for illustration in Harper's Weekly. With their special artist, Mr. Theodore R. Davis, we made a tour of the hall, and together selected a composition picture, a portrait, a landscape, and a portrait study from nature, to compose the series. As a result the first of the series made its appearance in Harper's Weekly for September 1st, the picture being a copy of one of the bewitching compositions of Mrs. Cameron of the Isle of Wight, called "Sir Lancelot and Guinevere." The illustration was a full page one, and was given the place of honor on the first page, and is a most exquisite sample of wood engraving, no doubt having cost Harper & Bros. a good many hundred dollars. We hope every photographer will purchase a copy of the Weekly, and possess this admirable reproduction; but fearing they may not feel interested enough to do so, through the kindness of Harper & Bros. we are enabled to give on another page a reduced copy of their engraving, which while small, secures us all of the merits of the original engraving, and does full justice to the photograph.

With the illustration we also reprint the remarks upon the picture which appeared in the same number of the Weekly.

If Tennyson could look upon this photograph by Mrs. Cameron, and the exquisite reproduction by Harper & Bros., he would feel well repaid for the effort expended in giving us one of the sweetest of his poems.

Involuntarily his lovely lines comes to our mind now as we look again and again upon this admirable rendering of his characters.

"'O Lancelot, get thee hence to thine own land, For if thou tarry we shall meet again, And if we meet again, some evil chance Will make the smouldering scandal break and blaze

Before the people and our lord, the King.'
And Lancelot ever promised, but remained,
And still they met and met. Again she said,
'O Lancelot, if thou love me, get thee hence.'
And then they were agreed upon a night
(When the good King should not be there) to

And part forever. Passion pale they met And greeted: hands in hands, and eye to eye, Low on the border of her couch they sat, Stammering and staring; it was their last hour, A madness of farewell."

This much progress then towards the coveted position for photography!

The project may be still furthered by more photographers striving each to make pictures which will be entitled to a place among works of art. We know that there are several who are doing this, and are doing well, and we look forward to a time not very far

distant when the managers of the different academies of fine arts will permit, as they do not now, photographs to be hung within their exhibitions. That is what we hope for, and are working for, and trust for united effort in the same direction.

#### A Good Surface for Retouching Upon.

BY W. H. TIPTON.

RECENTLY I noticed advertised in one or more of the journals a preparation for applying to the surface of negatives, for facilitating retouching, by supplying the proper tooth. The compound was advertised at the moderate (?) price of two dollars per bottle. For the benefit of those using a varnish requiring an application of this kind, an investment of a dime will supply sufficient of the following to last for months, and I believe it to be equal to any preparation for the purpose:

Rosin, . . . .  $\frac{1}{2}$  ounce. Turpentine, . . . 2 ounces

Skake well until dissolved.

For the face of an ordinary bust or vignette card negative, apply about half a drop of the mixture with the cork of the bottle, and rub over the face and other parts to be worked, with a piece of cotton flannel; continue rubbing until it is apparently all removed, and an excellent surface for the pencil will be the result.

The following varnish (see Mosaics, 1875, page 41) has a fine surface for retouching, without any preparation, if the negative is worked within a few weeks after being varnished:

These proportions are admirable for negatives or ferrotypes. For negatives not to be pencilled for some weeks after varnishing, the gum turpentine may be slightly in excess of the sandarac, and vice versa for ferrotypes, when necessary that they should harden quickly. Great care should be taken, however, not to get the sandarac too greatly in excess of turpentine, as it is a gum that cracks very readily if subjected to moisture or change of temperature. It can only

withstand the test of time when softer gums or essential oils have been generously used with it.

GETTYSBURG, PA.

#### R. R. R.

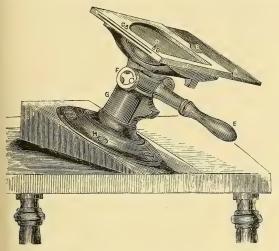
RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON. (Continued from page 283.)

PICTURES supposed to have been thoroughly washed and dried between blotters, were next passed into the mounting and finishing rooms. They had to be counted over, and the faulty ones at once rejected and destroved. There were numberless applications for damaged prints, but it was a wise policy on the part of "the Company" to allow nothing to reach the public that would not bear criticism. I do not deny that occasionally pictures made their appearance that an inexperienced photographer would pronounce "poor;" but they were invariably the best that could be produced under the existing circumstances. I have before remarked that if people could only be made aware of the extreme difficulties attendant upon the production of some classes of photographs, they would be much more lenient in their comments. The crowded condition of many of the exhibits, and the impossibility of their removal to more open spaces, in addition to either a want of light or too much of it, forced us at times to use instruments that, good as they might be for certain purposes, were yet unfit for the subject in hand. When handled by so many (not always careful) workmen, it is no wonder that once in a while prints became torn. These wounds meant death to the larger sizes; but if the stereos were not too badly damaged, one side of them could frequently be cut, so that it could be adapted to a carte de visite, or even a Victoria mount.

It is almost needless to say that the "Bergner Cutters" were adopted from the first for the stereoscopic work, and that they have remained in favor ever since. Their monotonous snap, as they separated the paper, could be heard from early in the morning until evening, and, at one time, during the entire night, for the demand for stock became so pressing that it was deemed expe-

dient to employ a force of midnight workers. If I mistake not, as many as six thousand stereos have been mounted during the nine working hours of daylight. Little dodges are sometimes as intrinsically valuable as so-called great improvements, and apropos, a method of placing the cutters was resorted to that proved a great comfort to the workmen, and prevented the exhaustion that protracted standing and bending over invari-



ably produces. Instead of the instruments being screwed down to the level tops of the tables, they were fastened to wedges, the bases of which were, of course, furthest from the operator. This gave him a chance to sit down whilst working, and brought the prints before his eyes, as an artist would have the paper upon which he sketches. Some of these machines were worked with a treadle and by foot-power; others by a handle and hand-force. It is questionable which was to be preferred. Until usage hardened either member, the one plan necessitated a weary leg (limb, I mean), and the other a blistered palm.

The larger sizes were cut out or shaped with the aid of stout metal mats, and here comes upon the face of our narrative another little wrinkle. All of the larger photographs were rectangular in shape, and you know it is difficult to get clean corners whilst cutting within a guide intended only for straight lines. The trouble was readily overcome by having the line of each side ex-

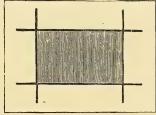
tended a half-inch into the body of the mat. The diagram below explains itself.

Whilst speaking of the cutting department, I must not forget to draw attention to the vast number of circular and round-cornered papers used for the mounting of transparencies. Perhaps I do this only to give an unsolicited paragraph of admiration to the merits of the "Robinson Trimmer," with which all such work was done. Those

who have used it will pardon me for the eulogy.

Now that our prints are trimmed, we must mount them; and to do this must have a suitable vehicle. Starch paste has so far won favor with photographers that it is a rara avis of the species that does not use it. The making of it has been considered of sufficient importance to occupy numberless spaces in our magazines descriptive of its manufacture. The approved method is to dissolve the starch in as small a quantity of cold water as possible, and then to add scalding or boiling water until

the mass becomes translucent. The party who attended to this little branch was, meta-



phorically, constantly in hot water (no pun intended).

The young ladies whose business it was to make use of this paste, would diversify their complaints from day to day. Monday morning it would be too thick; Tuesday, too thin; Wednesday, lumpy; Thursday, watery; and so on until the week closed. Fortunately the maker was bald, or he would have made himself so artificially, from the agony he was forced to undergo from his fair (?) tormentors. It was made fresh daily, and on a scale sufficiently large to supply the wants

of an ordinary paperhanger's establishment, by panfuls, which almost represented buckets.

Then comes the affair of wetting of the prints. At first, bunches of them were clasped by clothes-clips, and literally soaked in clean water until they became absolutely soggy. This method not proving satisfactory, the more sensible plan was adopted of placing them between damp cloths, and allowing them to remain there only long enough to remove their tendency to curl up. The application of the paste, the placing upon the mounts, and the rubbing down of the prints (protected by clean sheets of printer's ordinary white paper) with smooth blocks of wood, are all operations of so simple a character, as to need no description. Those who worked at it, hour after hour, day after day, and week after week, becameso deft and so rapid in their motions, that I found myself in the same character of a predicament that it is related Gilbert Stuart, the unrivalled portrait painter, once fell into. It is said that he once strolled into a carriagemaker's shop, and watching a workman paint the panel of a coach, marvelled how the man could apply the color so smoothly, confessing his entire inability to compete with him.

For all pictures larger than the cabinets, fixed and immovable sizes were established, and were known as 5 x 8, 8 x 10, 10 x 12, 13 x 16, and 17 x 21.

An uniform style of mount was selected. It was white, with a pale India tint in the centre surrounding the picture placed upon it.

Underneath the latter would be the elegantly engraved monogram, and the title and names of the "Company."

The use of this class of mounts involves some difficulty when they are fresh from the lithographer's presses. The colors or tints are of an oily nature, and repel the watery starch with which the pictures are coated. This objection occurs principally when the cards are recently from the manufacturer. The trouble manifests itself in the peeling up of the edges of the picture whilst drying. The remedy is to have enough of the boards in stock to give them a seasoning of some weeks or even months, or otherwise to rub them over with a tuft of cotton well satu-

rated with alcohol. There has never been introduced a neater or more artistic embellishment to the photograph. The gew-gawy gilt lines and colored devices are, happily, things of the past.

The drying of the pictures was a matter of no small concern. Large as it was, the accommodations of the "Photographic Studio" were inadequate to the demands for space during the pressure months. Spread from four to six thousand stereoscopic pictures, and a proportionately decreasing number of works of a larger size, upon tables or upon a flooring. Even though you place them in two or three layers you will still find an enormous amount of room required. Slow drying, engendered by piling together numbers of prints, begets mildew, and that in its turn brings ruin to the work. Mr. Wilson came to the rescue with a happy thought, which was taken advantage of, namely, the suspension from the ceilings of veritable fishing nets. As soon as mounted the photographs were cast into these, and doors and windows generally being open, currents of air passed both above and below the cards, thus speedily rendering them fit for further manipulation.

Notwithstanding we have discussed all of this multiplicity of operations, our pictures are not yet ready for the market. There is the dreaded retouching of the print to be undertaken. It is work that has to be done by a skilful hand, and work withal that a skilful hand dislikes beyond any other task. No matter how much care is used, it frequently happens in the printing of a large number of copies from single negatives, specks-of dust or dirt will inadvertently settle between the sensitive paper and the plate. They leave white marks, which do not sufficiently mar the print as to make it worthless, but which become in a measure eyesores to the critical purchaser. They have to be made of the same color or rather tint of the surrounding parts. A dab of India-ink, jabbed upon the offending spot, does not answer the purpose at all. As much judgment has to be used as is exercised by the lady who trots from store to store upon a shopping excursion, and expends hours in the matching of the hue of a dress pattern or a set of ribbons.

For plain photographic work I advise you to have by your side a palette, upon which are ground moderate portions of a good black India-ink, warm sepia, and scarlet lake. With combinations of these you can readily imitate the photography upon which you are working, whether it be cold or warm in tone. Of course it is necessary to apply these tints with a brush, and if you use plain water as a dilutant, you will leave a dead surface that betrays your trail. Every one will exclaim: Why not then use gum water? That will leave a gloss. Perfectly right! but it leaves too much gloss. In addition, I don't believe that the half of you know how to make gum water.

Accept my formula, and adopt it or not, as you see fit.

Picked Gum Arabic, . . 1 ounce.

Loaf Sugar, . . . 1 drachm.

Acetic Acid, . . . . 30 minims.

Alcohol, . . . . . . . . 30 minims.

Water in sufficient quantity, say from six to eight ounces.

Don't be frightened at the mention of the acid, and at the idea of putting a modicum of it upon the surface of your photograph. Used in this way it will not, I assure you, prove destructive in the slightest degree.

The gum water, however, I do not use for the indicated purpose. There is a better vehicle—the much-abused, always useful, albumen.

I have before this published a method of making a stock albumen that is equally as serviceable for this as it is for many other purposes. It is not original with myself, but I have used it for many years, and have come to consider it an indispensability in a studio or gallery.

Take the whites of eight eggs, carefully separated from their germs, and add to the mass twenty-four drops of glacial acetic acid, diluted with one ounce of water. Stir well for a minute with a glass rod, making no attempt to beat into a froth. Let the liquid rest for at least an hour, and then strain through cambric muslin. Finally add half a drachm of liq. ammonia, F. F. F., bottle, cork tightly, and use as required.

Slightly diluted with water nothing can excel this as a vehicle for water-color painting upon albumenized paper. Of its utility

for the preparation of negative glasses, for transparencies, and for porcelain work, I have already spoken.

If you cannot touch out the spots neatly, you had better allow them to remain. On numberless occasions I have seen prints from what were supposed to be good negatives, that might readily have passed for maps of the heavenly constellations. They were filled with white spots, crescents, and lines. I have frequently asked the privilege of inspecting the plates from which they were made. In most instances the printer had endeavored to conceal small pinholes or light scratches with that very useful paint of my manufacture (Opaque), and instead of having a scarcely discernible dark speck on his paper, caused the appearance of a white blot, somewhat difficult to eradicate. To remove these transparent imperfections upon the negative, you must possess a sharp eye, a steady hand, a fine brush (Opaque, of course), and a clear comprehension of what you are doing. Almost invariably when I have washed away the color that had been applied, I have found that at least three times the necessary quantity had been used.

We are now to suppose that our pictures are approaching completion; that, in fact, independently of the sale or final disposition of them, but two more processes are required. The one treats of the application of a lubricator, the other involves the matter of burnishing, an operation that has been considered of sufficient importance to induce legal battles between the patentees of differently arranged machines.

Both items may be speedily disposed of. Lubrication means the dabbing upon the surface of the photograph a preparation that will, after further treatment, enhance its brilliancy. All such compositions are alcoholic, and many have been proposed; but, as is usual in such cases, the simplest seems to answer the purpose best. Scrapings of white Castile soap dissolved in alcohol answers every purpose, and probably makes as good a medium as can be selected. The method of application is equally simple. Saturate a tuft of cotton, and with it gently rub over the surface of the pictures. When nearly, if not quite dry, they are ready to be passed through the burnisher.

Without in any way disparaging the instruments manufactured by other parties, I must state that those used by the Centennial Photographic Company were gotten up by Mr. Entrekin. I imagine that "our giant" was the largest he ever produced, since it would successfully burnish a print in itself  $17 \times 21$  inches, and mounted upon card board (30 inches) showing at least five inches of margin. Stereoscopic and small photographs were passed through presses especially adapted for them, and similar to those in general favor with the trade. The only points to be referred to in connection with this branch of operations is, that the workman should form an intelligent conclusion as to the degree of heat required for the purpose, and that whilst passing the photograph between the roller and planisher there should be no cessation of motion.

For a long time opinions varied among cultured photographers as to the desirability of so high a polish being given to their pictures, but in this, as in many another instance, the verdict of the general public has decided the matter, and now if a photograph is delivered unburnished, it is regarded by that same good old public unfinished.

(To be continued.)

#### The "Photo-Chrome" Not Patented.

TESTIMONY OF EMINENT PHOTOGRAPHERS.

SIR: I send you a copy of the testimony of eminent photographers in regard to the questionable claim of certain parties to a patent on the Photo-Chrome or Ivorytype process. Hoping you will find a place for it in the next issue of the journal, to warn the fraternity against paying out money for a process that has long been free to all, I am,

J. F. LARDNER, 1228 Chestnut St., Philadelphia, Artist in Improved Ivorytypes.

We, the undersigned, hereby certify that we have been familiar with the process called "Ivorytyping" on flat and convex glass, and hereby inform the public that the process cannot be monopolized, as no valid patent can be obtained, it having for years been public property, all parties claiming to the contrary notwithstanding.

SIR: The process of Ivorytyping was invented eighteen years ago by me. *Has never been patented*, and has been public property ever since.

F. A. WENDEROTH.

SIR: The above style of pictures, called Ivorytypes, were made by our firm about eighteen years ago, and have been made ever since by us and others. The firm was Broadbent & Co., subsequently Wenderoth & Taylor; it has also been practiced by many outside of this establishment. The pictures now called "Improved Ivorytypes" are essentially the same.

SAMUEL BROADBENT.

SIR: More than twenty years ago I wrote and published as follows: "The Ivorytype, a photograph colored and sealed upon plate glass, was introduced into the United States by F. A. Wenderoth, 1855." Other variations of the same, called the Diaphanotype, Hallotype, Crystallotype, are all pictures which were made on similar principles more than twenty years ago, finished upon thin or transparent paper, in either water or oil colors, or both, on the back or front; they are all mere applications of Grecian or Oriental painting to photography. The system of putting color on the back of the image was practiced in Germany in 1824, patented Applied to engravings, lithoin 1827. graphs, etc. Minotto twenty-five years ago applied the same to photography, and many others have followed him, varying the modus operandi in every conceivable form and style; and whoever professes to claim this kind or style of picture now as something new, has, in my opinion, made a barefaced filch from Minotto, of that which is common property, and has long been free to all.

MARCUS A. ROOT.

"Your scandalous figures stand quite out from the canvas; they are as bad as a group of statues." It was thus that the ignorance and bigotry of a Greek priest applauded the picture of Titian, which he had ordered and refused to accept. Let no photographer who knows his work is good feel discouraged when adversely criticized by his patrons. Do the best it is possible for you to do, and fame and competence will follow.

#### BUSINESS NOTICES.

Ir our readers were all practical printers (not photographic printers), they would observe some few changes in the appearance of our current number. Beginning with the eover, they will see that the name of our old friend, Mr. M. F. Benerman, is dropped, and that but one name now appears thereon. During the first year of the life of this magazine, Mr. Benerman was our partner and co-proprietor of the Philadelphia Photographer. At the end of that year we purchased his entire interest, and the partnership was dissolved. Since that time his name has appeared with ours as co-publisher, but owing to business changes which have occurred with both of us, hereafter it will be omitted. We feel like thanking him for the very efficient manner in which he has superintended the printing department of our magazine, and showing quite as much interest in it as though it were his own. But too much space must not be taken up with our private affairs. We part good friends, and our magazine will not suffer; for the same staff of compositors and printers, who have worked upon it for many years, still continue to help make it typographically beautiful. Upon turning inside you will see, first, in the advertising pages the change mentioned above; and second, which is more important to our readers, the fact that our number is printed upon entirely new type, which we think has much improved its appearance. We have thought best not to change anything in the general style until the completion of this volume; but at the first of the new year, other and important changes for the beauty and advantage of our subscribers will be made. It is true these are all matters of appearance, but now we have not even the name of a partner to fall back upon, we feel more than ever our responsibility to our patrons, and shall, if possible, work harder to please and to profit them. The course we have always followed of defending them against wrong, although we do generally get abused for it, shall be maintained. Not only this, everything that is of advantage to them shall be made known, and nothing hidden.

We shall be impartial so far as other

people are concerned, though very partial to the interests of our patrons. We hope that we may be guaranteed in pursuing this course, and ask your support.

The season is coming when we are anxious as to the amount of patronage we shall have for the new year, and we ask that not only we may keep our old friends, but that they may help us in securing new ones. This is essential in order that we may carry forward the plans which we have already set out upon.

The editor lives very much upon the reciprocal feeling which comes from his subscribers. If he knows he is doing them good, he can work better and more cheerfully, and with more advantageous results; if you cannot do more you can occasionally reassure us on this point if we are worthy of it.

With the hope that we will have none the less of your support, we go forward.

We are asked to announce another dissolution also. The partnership heretofore existing between Edward L. Wilson and W. Irving Adams, trading as the "Centennial Photographic Company," was dissolved by mutual consent, on the first of September last, and the business will be continued and the accounts settled by Mr. Wilson, who was the original concessionist under the Centennial Board of Finance, and is now sole proprietor of the works, negatives, and good will of the Centennial Photographic Company, and has no connection with any other photographic company. The business, however, will be continued under the name of the Centennial Photographic Company as before. The price of stereoscopic views has been reduced to \$2.00 per dozen, and very advantageous terms offered to agents. Mr. Adams still continues the manager of the photographic warehouse of the Scovill Manufacturing Company in New York, where he will be glad to see the friends of either of the companies named. It is to enable him to push with more vigor the interests of his old position that he retires from the Cen-. tennial Photographic Company.

\$5 buys you over 600 pages of useful reading matter in the *Philadelphia Photographer* and *Photographic Times*.

## Husnick's Photo-Lithographic Process.

Mr. Schaeffner presented the Berlin Society for trial, samples of the new photolithographic paper of Mr. Husnick, and gave the following details for using this paper, which embrace the whole of the process: 100 grammes (1542 grains) of bichromate of ammonia are dissolved in 1500 c.c. (51 fluid ounces) of distilled water, and liquid ammonia is added until the solution becomes a bright vellow, and commences to smell of ammonia. An excess is not hurtful. Afterwards 400 c.c. (131 fluid ounces) of alcohol are added, the bottle is well corked and kept in the dark. This liquid can be always kept in use by adding either ammonia, alcohol, or some fresh solution. To sensitize the paper this liquid is carefully poured into a flat dish, allowing the residue, if any, to remain in the bottle; the sheet is entirely steeped in the liquid, the prepared side uppermost, immediately removed and dried. The sheet once wet, the prepared side should not be allowed to come in contact with anything. No more paper should be prepared than can be used for the day's work.

Direct exposure to the sun is preferable, and should last but from one to two minutes. Diffused light, however, may be used, care being taken that the rays should act vertically. This precaution increases somewhat the time of exposure, which, however, does not exceed half an hour.

Any imperfect cliché may be corrected by retouching, as is done in ordinary photographic printing. Inking is very simple; common fatty transfer lithographic ink is used, five parts of which are melted with one part of wax; the whole is dissolved in essence of turpentine to the consistence of honey. The sheet that has been exposed is laid upon a sheet of paper or pasteboard, and on the prepared side are poured a few drops of ink, which are spread over the whole sheet by means of a soft cotton tuft, which is readily done by taking the necessary time.

When thoroughly spread, the excess of color is removed by passing the tuft in a slow and regular manner over the sheet, so as to leave a uniform gray tint, allowing an

exact development of the finest details, and still preserving enough ink for the transfer.

After five minutes the sheet is placed in water, and in from ten to twenty minutes afterwards the development of the image may be made by means of a fine sponge. When the image is developed, it is placed between two sheets of bibulous paper, and pressing lightly with the hand, it is sponged. The sheet is then exposed to the air for about ten minutes, and when at the proper degree of humidity (it should no longer yield to the pressure of the fingers), the image is transferred to stone or metal.

The transfer is made by first pressing the image very lightly on the stone to cause it to adhere, and then gradually increasing the pressure. At each pressure it is necessary to place a fresh sheet of dry paper on the image, so that it may absorb the humidity, thus allowing the giving of a stronger pressure without injury to the image.

The image is now wet, and the pressure repeated two or three times, passing it under the cylinder in two directions each time. It is then again thoroughly wet, and the paper is carefully removed from the stone; all the color remains upon the stone or the zinc, and these are treated in the ordinary manner.

In zincography it is well, when the temperature is high, not to use the paper until six hours after sensitizing, as used immediately it adheres too easily to the metal plate, and can only be removed in pieces, which does not happen with a stone, nor when the weather is cold. The above difficulty may be avoided by plunging the sheet, after development, into a bath of 1000 grammes (34 fluid ounces) of water, and 50 grammes (771 grains) of alum for a few seconds; it is dried and then transferred; the sheet will then no longer adhere to the zinc.—Mittheilungen.

#### VOICES FROM THE CRAFT.

Mr. J. H. Hallenbeck, of Boston, says: "As there seems to be an unearthing of old formulæ lately I wish to inform you that some six years ago Mr. H. J. Newton, of New York, gave to the photographers of that city a very superior formula for redeveloping, the principal ingredient of which was ni-

trate of lead, so at this day nitrate of lead is nothing new. About the same time Mr. H. J. Newton noticed the fact that when he used gallic acid in his preservative for dry plates, after the exposure and before developing, the image appeared, and when left for half an hour, the developer appeared to have made a very strong impression. Mr. Newton and myself thought he had made a great discovery, when we discovered that Mr. M. Carey Lea had noticed the same effect on some of his plates. So number two is nothing new."

Mr. H. F. Everett, of Mankato, Minnesota, says: "I was much pleased with Mr. Cadwallader's suggestions on prices. Since January 1st my prices have been the same as those given in the magazine for last month, except that I make 8 x 10 at \$3.00 and duplicates at \$1.00 each. Previous to that I got for baby work, eards, \$5.00; adults, \$4.50; 8 x 10, first print, \$4.00; 8 x 10, duplicates, each, \$1.50; 4-4, first print, \$3.00; 4-4, duplicate, \$1.00; cabinets, first dozen, \$8.00; after dozens, \$5.00, and for about three years I have had opposition, working at \$2.00 per dozen for cards, and other work in proportion, combined with our grasshopper scourge, which has very much lessened the demand for pictures. But as the latter have left our State no deposit of eggs this year, and our crops are good, we are all happy and expect better times soon."

#### OUR GOLD MEDAL PRIZE OFFER.

On the strength of the prospect of better times, we hereby offer to our subscribers all over the world, another large heavy gold medal, the same as awarded by the National Photographic Association and by ourselves heretofore, costing nearly \$100, for the best six negatives sent us by January 20th, 1878. The size and figure must be appropriate for our magazine, and therefore must be restricted to either a Cabinet or the Promenade style.

The pictures must be portraits, of course, the negatives to be delivered to us free of expense, together with a mounted print from seach. A jury of competent judges who are practical photographers will examine the competing pictures, and make the award.

They will be authorized to throw out any examples that do not reach a sufficiently high standard to be regarded as examples of modern first-class photography. Each party admitted to competition will receive one picture from one negative of each competitor. It is desired that the six negatives should be from the same subject, for various reasons, among which are the following: That we may be able to make more general remarks upon the picture when using it for illustration in our magazine, and that the photographer may be able to show that if he can make one good picture of a person, he can repeat it over and over again. Moreover, in favor of the competitor, it will be found easier to make pictures of the same subject than to multiply the subjects.

We must be sure also that the negatives sent were made specially for this competition, and not picked negatives from stock on hand.

We would caution photographers in packing their negatives not to send them in grooved boxes, but to use a box somewhat larger than the negative, with soft packing, such as cotton or soft paper, without any more pressure than is necessary to keep the negatives from moving about; this will save vexatious disappointment. We also ask that the lids of the box be screwed and not nailed. We trust that this offer will be taken hold of generally; it was only after first receiving the promise from some of our leading photographers to compete that we are led to make this offer. It is a good while since we have offered a prize, and we trust the competition will be large, and not as the last two have been, disappointing We reserve the right to return the negatives at our expense, and make no award if it should be found that the competition is not general enough to warrant it. Our main object in this is to secure firstclass negatives for the embellishment of our magazine, in order to be able to place firstclass subjects for study before our readers, as well as to encourage effort towards the production of first-class work. If we cannot attain this, then our offer falls to the ground. Further information will be given to those who desire it.

The jury will be obliged if each photog-

rapher will mount his prints upon plain cards, and put some private mark upon them, that his name may not be known until the award is made. Moreover, that information will be given as to the kind of light used, the lens, and the formula. These latter matters are for us for publication, and not to influence the jury.

#### A VISION.

WHETHER caused by too little silver in our nitrate bath, or by an overdose of cyanide in our fixing solution, we know not, but we have had a vision. Some five hundred of our subscribers had failed to pay their subscription. We gave them notice in our magazine that if they would all pay up we would come and see them. They did so, and we did so—as long as the vision lasted.

The following is something like an account of one day's proceedings: We woke up at four o'clock in the morning at the recently burned hotel in St. Louis; we dressed hurriedly, annoyed to have overslept, bathed in the Mississippi, ran around the park, called at the office of the *Practical Photographer*, was surprised not to find the editor up. Took the fast train.

Five A.M., called upon our friend Rocher at Chicago; took him by surprise; he surprised us in turn by stating that he always pays his subscription in advance promptly—little annoyed that he had no negative ready to make a picture of us on the spot.

Six A.M., took a cup of coffee, and stopped at Indianapolis. Woke up Mr. J. Perry Elliott, and saw him fix his morning bath.

Seven A.M., called upon Mr. W. H. Whitehead, of Pittsburg, and had a chat with him at his bedside; afterwards visited the ruins of the Pennsylvania Railroad depot, and nobody being up, took the early train for Detroit.

Eight A.M., breakfast at Detroit, during which our friend Bigelow delivered a lecture on artistic lighting, during which lecture he complimented us on the manner in which we had brought out his new book. He seemed surprised when we told him it had a large sale abroad as well as at home.

Nine o'clock A.M., at Milwaukee, Wis.

Waited upon five photographers—had to decline a reception from them.

Ten o'clock A.M., visited St. Paul, Minn. Had a long interview with neighbor Zimmerman on the carbon process, and came near being delayed, but arrived at Buffalo on time.

Eleven o'clock A.M., looked in upon friend Baker at Buffalo, and found him delighted over a recent triumph which we shall tell about fully on another page. Attended lectures there on drawing; read a criticism on the best method of defeating obnoxious patents.

Twelve o'clock, passed over Niagara Falls, visited the three photographers there, found them cutting each other's throats, the price of stereoscopic views being reduced at retail to about \$6 per gross. On account of pressing engagements we could not witness the display of frost work, which had been arranged to take place for our especial delight.

One P.M., drove to Rochester, and had a pull on Lake Ontario with our friend Kent; his work is better than ever. Visited Vick's.

Two P.M., at Syracuse. Inspected the stock depot of Mr. F. Hendricks, who was as bland and genial as usual.

Three P.M., back to Rochester, having forgotten to visit our friend H. D. Marks, the famous stockdealer. The loss of this hour put us back for the whole day.

Four P.M., at Albany. Hurried around among the different photographers of the city, and was permitted by the legislature to witness a celebrated trick called "tweedle dum and tweedle dee"—our faith in human nature shaken once more.

Five P.M., in Boston. Examined the winged instrument for which that city is so celebrated; enjoyed supper with our friends Black, Allen, and Rowell, looked through the celebrated Euryscope lens, took French leave immediately for Westboro.

Six P.M., at Westboro. Visited the new studio of our artistic friend and fellow-traveller, Gates, listened to an oration, and followed on.

Seven P.M., dinner at Springfield at the hotel; had a dissertation read to us on spirit photography by Moore Bros.

Eight P.M., at New Haven. Inspected a new camera box under way by S. Peck & Co., which will automatically go and make a view, and return the plate for development, after being wound up by an ingenious clockwork. Dropped in for a few minutes at Yale College.

Nine P.M., at New York. Surprised to find we were not expected so early in the evening, rested at Scovill Manufacturing Co.'s for a few minutes. To our surprise, Bogardus, Kurtz, and the rest of the profession had closed their places of business so early in the day.

Ten P.M., at Baltimore. Invited to dance a quadrille and to visit the Real Estate Club, but preferred the Society for Prevention of Cruelty to Photographers, but was informed no strangers were admitted.

Eleven P.M., at Charleston, S. C. Made our visit short there, the weather being very

Twelve midnight, at New Orleans. Found our friend Blessing had retired, but he woke up with his several little Blessings, and gave us a delightful lunch, besides paying our last bill.

One A.M., set down and wrote a few letters, and in attempting to reach for some more ink our pen dropped; we woke up, and found that the whole thing was a vision from beginning to end. Everybody knows that our subscribers always pay in advance; of course such a trip as we imagined we would take would be an absolute folly and unnecessary. We believe the whole thing after all was caused by the recollection of making photographs of Dom Pedro last summer at the Centennial.

#### GERMAN CORRESPONDENCE.

The Wonders of the Blue and Violet Light in Europe and America.

In your June issue I find an interesting article which tells about the new wonderful things produced by General Pleasanton with blue light. It is remarkable that at the same time Mr. Scotellari, at Paris, arises in order to make the world happy with violet light. In Asia the Russians are gospelizing in red, with blood and fire, in order to teach the Turks the Christian religion and humanity. Africa is always active in black; it is only necessary yet that in Australia arises a prophet proclaiming to have found salvation in green and yellow, and the world would be

on the best way to be happy in colors. But, joking apart, Pleasanton cites correspondents of scientific reputation, who step in his place, and Mr. Scotellari presents laudable certificates of several renowned photographers. Therefore we dare not say the opinions are divided, and the new gospel of colors is an article of faith.

But now permit me to explain my point of view on the foundation of facts, which will be sufficient for everybody to form his own opinion.

When General Pleasanton ascribes to the blue light some extraordinary action, it finds its foundation, perhaps, in the fact that blue beams are especially effective on silver salts. But it is entirely wrong to assert that the effect of blue beams on all other things must be the same. It is anyhow an invincible fact that the breathing of the leaves of plants, i. e., the consumption of carbonic acid through the leaves, takes place better in yellow than in blue light. We know further, by means of Herschel's experiments, that blooming of colored flower-leaves by no means takes place in blue light, but in such light which is complimentary with the colors of the flower-leaves. Blue flowers bloom better in yellow light than in blue; violet better in green light, etc., etc. These instances explain already how wrong it is to ascribe to blue or violet light some superior chemical action. Even with luna cornea we have not the right to declare the blue and violet beams of an especially chemical effect, for I have shown by former experiments that muriate of silver and bromide of silver can also be made sensitive for yellow, green, and red beams, if we mix it with certain substances to absorb the mentioned beams. And further, I succeeded in changing chlor-silver plates by coloring them with naphtalin red, so that they were the most sensitive for yellow, and not for blue and violet. Have we, in view of these facts, yet a right to declare the blue and violet beams of an especially chemical action? The reason of the chemical effect of these beams on luna cornea is because this salt absorbs them. But what are even those hundred thousands of photographical plates which are produced every day in the world, in comparison with the millions of plant-leaves covering thousands

of square miles in each country, in forest, field, and meadow, the breathing process of which takes place better in yellow than in blue light? And what are these in comparison with the millions of eyes of animals, the purple vision of which, as Kuehne's new experiments show, are a great deal more sensitive for yellow light than for blue? If we count altogether, I believe we have a right. to doubt Pleasanton's observations. asserts to have raised in blue light some grapevines with an enormous vegetation in leaves; but how can we compare this fact with the above mentioned, that the breathing process of leaves does not take place as good in blue light as in white? How can we compare it with the observations of Hunt, who has shown that the growth of wood in stems is deterred by blue light?

I say, without hesitation, that if General Pleasanton has raised indeed larger leaves of vine under blue light, the reason of it must be something else than the blue light. What it is I cannot tell; for to form an opinion about it, I ought to be myself at the place in order to investigate the natural disposition of Pleasanton's grapery. will direct the attention of the readers to the other point of Pleasanton's so-called invention. It is the heat which is noticed under blue glass. In the discussion with Dr. D. Hayes Agnew, it is especially mentioned that blue window-panes become more heated under the beams of the sun than white ones, and that we can feel it with the hand (see June issue, page 162). This fact is not at all new, and is not even wonderful, but entirely natural. If we put different pieces of colored glass in the sunbeams, they will become very unequally heated; white glass in the lowest degree, stronger the yellow, stronger yet the blue, and the strongest the black. At the first glance it must be noticed that that glass will be heated the most which absorbs the heating beams the most, and they are especially the red and the yellow. And by a look into the spectroscope we may convince ourselves that especially the blue glass consumes the red and yellow, the heating beams, the most, and of course it must be heated in a higher degree than white glass, which absorbs these beams in a smaller proportion.

The air takes part of the heat of the glass, and therefore it is not astonishing at all when a room, with blue window-glass, under the influence of the sunbeams, is warmer than one with white window-glass. It is here again the law of absorption which comes into effect. Only those beams are acting either chemically or heating on a substance which is absorbed by the substance itself.

Therefore it is not necessary at all to believe that the heat in Pleasanton's bathroom "is produced by the conjunction of the opposite electricities of sunlight and blue glass." This pretended invention of the General is nothing but a mere whim. Blue glass develops no electricity, except by being rubbed, and of a free electricity of the light we know nothing-at all. Electricity we know so far only as attached to substances; a nearly absolute airless space stops every passage of electricity; but light is no substance, but an undulatory motion, and transmits even through an airless space.

When Pleasanton asserts now that blue light is acting favorably on animal life, then I dare say that this opinion is not proved sufficiently by experiments. He is mistaken in the same manner as Scotellari with his violet light-a mistake which Mr. Gaffield has shown already. He proved that the chemical action under violet glass is inferior to the chemical action under white glass. The whole mistake is based on the fact that they confined the violet light, after it went through violet glasses, with the violet part of the spectrum; but the latter has no other similarity with the first but the color. The violet light of the spectrum is uncompounded and of a strong chemical effect; the violet light, produced by violet glasses, is compounded by red and blue, and only by its part of blue light, which it contains, it produces its chemical action, which of course is so much the less as the part of blue light is a lesser one. Mr. Scotellari has experimented long enough at Paris to know at last that lighting by violet glass offers no advantage.

Luckhardt, at Vienna, has also tried his violet varnish. The result was that this varnish faded under the sunbeams in summer.

But with that Mr. Scotallari seemed not

to be satisfied yet. After the violet light in windows had no success, he is using it for after-lighting in the camera obscura. As it seems he wanted to favor with it at first the Eastern world, for before the new invention was introduced at Paris, he came to Berlin, and invited several renowned photographers to his experiments in the atelier of Loescher & Petsch, where he offered to produce pictures, by means of a new process of his invention, in one-third of the time of exposition required by the old wet process. I was one of the invited. Scotellari prepared his plates in the dark-room, without anybody being present, and toned them himself. According to my proposition, there have been prepared at the same time common plates, in the usual times of exposition, by Messrs. Loescher & Petsch. Scotellari's plates showed not the expected result. Only one of three gave indeed a better picture, in a shorter time of exposition, than the plates of Loescher & Petsch. But one part of his secret was thereby discovered right away, and that was the after-lighting applied by him. He used a lid, the round face of which contained a hole, covered by violet paper pasted over it. He lighted at first in the usual way, after which he put on the lid of pasteboard, closing in a short time the slide; in the meantime the after-lighting took place. That this indeed can have some effect has been proved already by former experiments; and thereby even we need no violet light, for the experiment succeeds just as well with white or blue light. But the bad thing in this case is the circumstance that we have to risk the veiling of the plates, if we are not very careful with the after-lighting, and that is the reason it is only applied when very necessary, for example, by underexposed plates of children's pictures.

The violet-transmitting lid is the main part of Scotellari's so-called invention. But he asserts to apply besides it an entirely new process; neutral collodion, neutral silverbath, and neutral developer. That this process is of any worth, I doubt very much. In the hands of the inventor, at Berlin, the process showed no favorable results. I believe that pictures can be produced with the mentioned neutral chemicals; but how some worth can be laid on the neutrality, I cannot

imagine, for it is very difficult to obtain this neutrality. The photographical preparations are changing during the time of work; the collodion turns sour; the silver-bath and the developer also. And for such doubtful invention Mr. Scotellari is asking 14,000 francs. In Germany he had no success with it. Perhaps he will try it in England and America?

Yours, truly,

DR. H. VOGEL.

BERLIN, August 28th, 1877.

#### OBITUARY.

WILLIAM HENRY FOX TALBOT.

A CABLE dispatch from London announces the death recently of William H. F. Talbot, the chief discoverer of photography. The deceased was born in 1800, and was the son of William D. Talbot, Esq., of Lacock Abbey, Wilts, maternally descended from the Earls of Shrewsbury. He was educated at Harrow, and at Trinity College, Cambridge, where he obtained two prizes. represented Chippenham in the Liberal interest in the first reformed Parliament. In his Pencil of Nature, published in 1844, he has related the steps by which he was led to the discovery of the photographic art, for which he received, in 1842, the medal of the Royal Society. Of late years Mr. Talbot had devoted himself to the task of deciphering the cuneiform inscriptions obtained from the East. He had written several works, the principal ones being Illustrations of the Antiquity of the Book of Genesis, published in 1839, and English Etymologies, in 1849.

#### "A. M. C.'S" TROUBLE.

WE have received several communications in response to our request to help "A. M. C." out of his trouble. It will be a little entertaining to read over these responses, to see how variously different photographers think on the same subject. For example, one of our correspondents recommends "A. M. C." to weaken his bath, while another confidently recommends him to strengthen it, both being quite sure in either case that the trouble will be removed. Of course, all are entitled to guess at the conundrum, but our impression is that Mr. Frank Jewell, of

Scranton, comes nearer to the mark than some of the rest. We append the several letters that have been received, without further remarks from ourselves. We have no further letter from "A. M. C." himself. We are still willing to hear from some more on this subject.

I am very much interested in "A. M. C.'s " trouble, and should like to see a negative (unvarnished) containing the evil. After reading the article carefully, I came to the conclusion that the trouble is in the albumenizing of the plates, either in the albumen or in the manner of applying it. Now I don't remember Mr. Carbutt's mode of preparing albumen, but if "A. M. C." will follow my directions, I believe his trouble will vanish like a summer cloud. Make a strong solution of concentrated lye, and soak the plates (new and old) for twelve or twentyfour hours. Wash well under the tap, and soak in water, four or five parts; nit. acid, com., one part, twelve hours. In the meantime prepare albumen as follows: Take the whites of two fresh laid eggs, put them in a clean twenty-ounce bottle, and add about two ounces of melted ice (the ice should melt spontaneously), shake hard for about ten minutes, then add fourteen ounces more of melted ice, shake, and let stand while his plates are soaking. Awhile before using let him add a few drops of aqua ammonia, enough to make the albumen lose its milky appearance and become clear. This is a stock solution; of this solution take about one ounce, and add ten or twelve ounces of melted ice; filter thoroughly through a fine sponge, and it is ready.

Now the next thing is the place where he albumenizes. He should not albumenize where iron or hypo or lye or acid has been used, as these things, if lying around loose, are certain to settle on the plates. Wash out your drying-rack under the tap, allowing the water to run over it copiously. Wipe off the shelf or table where it stands with a clean wet cloth, and place a new clean piece of white bibulous paper underneath. Rub the plates thoroughly on both sides with the hand, being careful to touch every part of the plate; finally rinse under the tap, the front of the plate first, then the back, and lastly

the front again; drain the water off as much as possible, and flow with the albumen. As soon as dry remove to a place where dust cannot reach them.

Don't put anything in the albumen except as above, and follow the directions for manipulating, and I am confident he will get rid of his trouble. I should like to correspond with "A. M. C." on this matter, and all communications shall be confidential.

FRANK JEWELL,

Scranton, Pa.

I have often experienced just such effects in warm weather as "A. M. C." describes, a persistent evil or trouble in the dark room, and I venture my opinion if "A. M. C." will add plain collodion to his working collodion, quantity sufficient, and keep his collodion vials in cool water, he will have no more trouble from such effects as you describe.

SAMUEL LYNN,

Paris, Texas.

After a careful perusal of the article and correspondence of our brother "A. M. C.," under the head of "A Persistent Evil," in last month's issue of your valued journal, I thought to partly comply with the demand for relief. Now from the very graphic description of this (persistent evil), I concluded that it is the same from which I recently suffered for about two weeks, and after all sorts of experiments, finally only found relief in cleaning my water-tank, and filtering the water used in washing the negatives. The water at present being again free from its impurities, works well without filtering, the tank being kept perfectly clean also, and the resulting negatives coming out "bright as day."

Should feel pleased to hear of the result of this from "A. M. C." after this experiment.

John H. Henning,

Johnstown, Pa.

N. B.—Was somewhat disappointed in the illustration of last month's issue, "that very fine chromotype" group. Hope you will do better next time. J. H. H.

Let "A. M. C." reduce his silver bath to 25 or at most 30 grains, and filter, of course. His trouble will then probably end. Else his nitrate of silver contains too much carbonate of potash.

Antonio,

New York.

PLEASE to request "A. M. C." (whose article in the journal I have just read), to strengthen his negative bath up to 45 grains per ounce, as I see he works it at 36 per ounce. I think his trouble will be remedied, all his other chemicals working in harmony with his bath. I think this will help him out of the fog. I have had a little experience of that kind myself.

P. S.—Add C. P. nitric acid to his negative bath.

W. M. GINTER,
Lewisburg, Pa.

#### PHOTOGRAPHIC NEWS.

REFRESHING THEMSELVES WITH CHEMI-CALS. - The London Examiner publishes the following: "The value of photography in times of war was strikingly exemplified during the siege of Paris, by the introduction of the photographic post; but the present war has demonstrated a curious extension of its powers as a means of offence. During the bombardment of Rustchuk, a band of Bashi-Bazouks took advantage of the absence of a German photographer, named Bauer, to break into his studio. The owner had, however, already placed his valuables in security, so that his visitors found nothing but a number of old plates. The result of their visit may, therefore, be said to have been literally negative. At last, in some cupboard, they spied what they took to be a bottle full of liquor. Seizing upon their booty, and fighting between themselves for its possession, three of them shared its contents between them. The liquor, however, turned out to be nothing but a solution of cyanide of potash; and when the owner returned to his studio, there amidst the havoc he beheld three Bashi-Bazouks lying dead on the ground with the fatal bottle between them."

A Dublin university magazine is to be illustrated by photography—the Woodbury Photo-Relief process is to do it.

Mr. Flammaut gives the following developer for portraits in the *Moniteur*, as follows: "In order to make the iron solution keep, and to prevent it becoming charged with acids, I do not add the acetic acid and alcohol until just before using. My mode is as follows: Make a saturated solution of

protosulphate of iron (this salt is soluble in twice its weight of cold water), then to  $5\frac{1}{2}$  drachms of this solution add

"The bath is then ready for use. The addition of a few drops of a five per cent. solution of acetate of soda gives results of a very high character."

THE following little anecdote, told by a correspondent in the Monats Blatter, illustrates the fact that the exhibition by an inferior photographer, of photographs made by one eminently his superior, as specimens, is no new thing in the old country, but is practiced there as well as here. The correspondent says: "At Lyons I found the showcases which I had examined four months before, mostly filled with new pictures, which were so exceptionally fine that I immediately stopped to make an examination. The establishment bore the euphonious name of 'Photographie Universale,' the proprietor of which is Monsieur Gris. Lo! and behold, I found that the beautiful photographs bore the name of Fritz Luckhardt, of Vienna, and I noticed after further examination that all the pictures, consisting of fiftyfive cabinets and carte-de-visites, emanated from the studio of Mr. Luckhardt."

A NEW FIXING MEDIUM. — Herr Lubruaun exhibited some prints at the last meeting of the Berlin Photographic Society which have been fixed by a new medium, the discovery of Herr Krüger. It is claimed that this medium is entirely free from silver, leaves no bad effects even if the washing be imperfect, and to fix the pictures in ten minutes, although they may remain in the solution as long as required without being injured. The whites are entirely brilliant not more than ten minutes after washing. The silver which enters the solution is precipitated so that the bath is constantly ready for use, needing only to be kept to its minimum of strength. It may be used also with the gold bath, so that the operations of toning and fixing may be carried on together. We are not told the name of this salt, and therefore we shall be in a fix until the matter is cleared up. We hope for the success of Herr

Krüger's experiments, and that the days of hypo are numbered. Query. Will the carbon process also be dropped when this last hair on which its life hangs is severed? This last query qualifiedly.

Apropos of our remarks above respecting the exhibition by photographers of specimens made by others, "Free Lance," in the British Journal of August 24th, gives us some strictures upon the method, which are correct, although a little one-sided. He says: "The practice has always been carried on; now it is fostered and encouraged by one of the largest photographic material dealers in the kingdom, who, by means of the travellers, actually offer to photographers specimens in portraiture and landscape of the highest style of photography; and these pictures may be seen in many a third-rate photographer's show-cases and exhibition-rooms. I do not care to characterize such conduct; it will be called enterprise no doubt." May it not be, neighbor "Free Lance," that photographers of like eminence with yourself and our friend Fritz Luckhardt, might possibly be flattered and pleased at such conduct on the part of third-rate photographers? Does it not advertise you and bring you to the favorable notice of the public, who may sooner or later have it in their power to visit you, and have the privilege of sitting in your studio? Again: does not the securing of your specimens hither and thither, do real good in the matter of exciting the desires of the public for better work, thus causing them to demand such of the third-rate pillager? There are two sides to this medal, and there is also an edge which cuts with a fine milling, and the edge is the portion which draws into the pockets of the first-rate photographer the proceeds of such extensive sales from his best negatives. Is it wrong to make effort in this direction "Free Lance?"

A PHOTOGRAPHER in England sued a railroad company for breaking his negatives in transitu, and he lost his case.

POIKILOGRAPHY is the last effort on the part of a London photographic firm to secure a name for some apparently fossilized process, which consists in producing some sort of reproduction in color; we think it must be similar to "Convex-glacé-chromo-

typography," now very much practiced in this country.

MR. CHAS. C. BRADSHAW, in the British Journal, says: "Noticing a few remarks on the cleaning of opal glass, in which there appears to be a difficulty among photographers, permit me to lay before your readers a method I have long practiced with great success, in the hope it may be of service to those troubled with the same. Having obtained the opal I wanted to clean, I place it on a bench near a water-tap, and then pour on it a small quantity of Calais sand, over that enough nitric acid to saturate it. I next cut a round stick, and with a piece of rag wrapped around the end of it, rub the opal vigorously for a few seconds. I now pour water on the opal, rubbing it all the while until quite clean. I find the above to answer every purpose, as it brings the opal beautifully white, and free from all stains whatever."

Dr. Stein, of Vienna, who has devoted his life to the photographing of all sorts of unusual and queer things, has recently given attention to photographing records of the human voice. He has already accomplished the feat of photographing the tones of the violin, by placing a little disk upon the strings, which, when vibrated, also cause the disk to vibrate too, and a hole in the disk permitted a pencil-light to fall upon the moving sensitive plate, by means of which a curved line was secured, whose movements up and down were as frequent as the vibrations. Professor Keenig has been experimenting in a similar way, but his method is different. He lights a lamp, the flame of which is very sensitive to the vibrations of sound, and by the use of an instrument or the human voice, he causes the flame to flicker in harmony with the sounds, and these flickerings can be photographed. We should think, however, that the flame would be influenced by the surrounding atmosphere, and would not be so exact as Dr. Stein's method.

OUR esteemed friend, Mr. J. Levy, of Paris, the manufacturer of the celebrated lantern slides, for which we are agents in America, has been elected a member of the Administration Committee of the photographic department of the coming exhibition in Paris. We hope he may prove himself so affable as to please everybody—a difficult thing to do in such cases.

A Mr. Jarman is experimenting with lightning as a means of illumination. Some of his results have been quite satisfactory to himself. If he can succeed, no doubt he will be able to chain and bottle up a sufficient quantity of the obstreperous element for retail to the London photographers during the foggy season. We cannot see what more practical use he can make of his discovery, if such it be, and wish him well.

NEW ZEALAND is said to be a bad place for photographers. Cannibals!

The price of 2000 francs is offered by the Society for the Encouraging of National Industry at Paris, for the invention, before the 1st of January, 1880, of a process which permits of the transformation of a negative taken from nature with finely gradated tones, into a block capable of being printed in a printing press with type,. We trust some of our ingenious readers will get to work at it and gain the prize.

Wanted, a treatise on photo-lithography, one that will tell how to make photo-lithographic prints by a simple and unpatented method, and how to make copies of engravings so as to print with type. Who will be the public benefactor in this direction?

As Mr. Boivin justly remarks, the absence of an actinic light in the interior of the laboratory is, especially for those operators who use the emulsion processes, an indispensable condition of success.

A distinguished chemist, Mr. Bardy, who was much interested in this question, has discovered the means of completely intercepting the injurious rays. After having carefully studied the coloring matters used up to the present time for this purpose, Mr. Bardy has ascertained, by means of the spectroscope, that all, with the exception of chrysoidin, allowed in a lesser or greater degree the passage of certain rays.

Like fuchsin, anilin, etc., chrysoidin is a product obtained from coal-tar; it is of a very bright orange-red color, and being soluble both in water and alcohol, may be used for different purposes: baths, coatings,

varnishes, etc. Mr. Bardy prefers to use it in the form of a pellicle by mixing it with gelatin, as follows: 125 grammes (1925 grains) of water, 2.05 grammes of chrysoidin (31 grains), and 20 grammes of gelatin (308 grains), with addition of alum.

It results further from the experiments of Mr. Bardy that by combining certain coloring matters with chrysoidin, it is possible to make screens which will intercept any given rays. These investigations have a practical importance which will escape no one.

The same experimenter, who uses for certain purposes Mr. Chardon's process, and who is obliged to prepare at one time several quarts of emulsion, has found an ingenious process to do away with the frequent stirring of the collodion emulsion during the long hours required in its preparation. He places the vessel that contains it upon a suspended swinging-board, where it receives mechanically repeated blows which agitate the mass.

The apparatus consists of a small board suspended by rings from four hooks, terminating in an equal number of small rods, also fastened by rings to supports in the wall or ceiling. The regular movement is given by a tourniquet or any other analogous instrument, put in motion by water coming with force from a spiggot.

Photographic operators are commencing to direct their attention to the medical properties of bichromate of potash, which is generally considered as a harmless product. In the carbon process now in use in all parts of the world, the bichromate of potash or ammonia is daily in the hands of operators, and it is well to make known the dangers incurred by the careless handling of this dangerous compound. Dr. Hornig\* calls attention to the subject, and, according to him, the bichromate should be handled with as much care as arsenic or bichloride of mercury. Taken inwardly, the bichromate produces inflammation of the lining membrane of the mouth and throat, and cramps in the

<sup>\*</sup> The editor of the Moniteur remarks that as far back as 1874 Dr. Napias mentioned the dangerous property of this product in one of his interesting articles on the Hygiene of Photography, published in the Moniteur de la Photographie.

stomach. In the case of strong doses the feet and hands become cold, are paralyzed, and death ensues. In poisoning by bichromate, it is recommended to give milk and white of eggs, keeping the extremities warm by friction, and to send for the doctor. It is also very important to give the hands a good washing after having touched bichromate, especially when there are slight abrasions of the skin, as the pustules produced by this salt are painful and difficult to cure.

—Moniteur.

Mr. F. Boll, Professor of Physiology at Rome, is continuing the experiments relating to the discovery of the action of light on the retina of the eye, and has published the results in the Centralblatt für die mediz. Wiss., 9th June, 1877: "When a frog has been kept in the dark a certain length of time, the retina of its eye becomes red; on exposing it to light it becomes white, as we have already said in a previous letter." In the above-mentioned journal Mr. Boll makes known the action of the different rays of the spectrum on the retina of the eve. Red, yellow, and green cause the retina to redden, whilst blue or violet light, continued a long time, whitens it.

Two new periodical works, illustrated by means of photography, have just made their appearance in London. One of these is a book on popular botany, called Familiar Wild Flowers, by Mr. Edward Hulme. Each number has photographs of natural size, and costs twelve cents. The other is a publication of Messrs. Sampson, Low & Co., called Street Life in London, Messrs. Thomson and Adolph Smith being the photographers and editors. The photographs are carbon prints, and the subjects are taken from scenes in the streets of the great city.

The photographic reproduction of banknotes appears to be a question worthy of immediate attention. Since photographic reproductions have been perfected in so extraordinary a manner, the divers applications of this art are daily spreading. We have just read a new treatise of toxicology, in which it is a question among other things of the divers processes by means of which the chemist and the expert may discover the falsification of documents, etc., but the authors of this book do not inform the reader if any method exists to enable one to recognize a Russian note made in Germany and sold in France. The carbon process in the photographic art appears to be, for banknotes, etc., the counterpart of the galvanic apparatus in the manufacture of counterfeit money. Thus we see that science which emanates, they say, from Providence, has always a something about it which belongs to the devil.—Moniteur.

WE have already alluded to the communication addressed by Mr. Bardy to the "French Photographic Society," concerning antiphotogenic coloring matters. Here is the formula given by the author of the composition of the chrysoidin pellicles and varnish:

2 per cent., . . 40 e.c.  $(10\frac{3}{4} \text{ fl. drs.}).$ 

The chrysoidin is first dissolved in the water by the aid of heat; the solution is filtered, allowed to cool, and used exactly as in making pellicle clichés. The pellicles should be as thick as possible; and for this, after having rubbed a plate with tale and collodionized it, the plate is bordered with soft wax, so as to form a sort of dish, in which the gelatin is run. After the gelatin is fixed, the plate is raised up and allowed to dry. The gelatin is then covered with collodion containing castor oil.

By this process is obtained a very pliable pellicle, of a ruby-red color, which, if it has been well prepared, stops the passage of almost all the active rays of light.

An excellent antiphotogenic paper may be prepared by steeping a rather strong paper in a solution of

This paper may be used for intercepting light in laboratories, and wrapping all sensitive substances: prepared plates, dry emulsion, emulsionized collodion, etc.

Mr. Guilleminot, of Paris, is now manufacturing a number of articles to be used

as accessories in taking photographic portraits or groups. The objects, which are a perfect imitation of nature, consist of rocks covered with moss, trunks of trees, stone balusters, furniture, etc., and are made of plaster, mixed with gelatin, which is readily moulded, and soon becomes very hard. This composition readily takes colors and varnish, thus reducing the illusion as complete as possible. Moreover, it has the advantage of being very light; the massive rock may be displaced by pushing it with the foot; the balusters may be carried under the arm, and the most imposing piece of furniture is hardly heavier than a camera. Finally,-most important question,—these accessories are so cheap that they will find a place in the most ordinary studio. Whilst seeking to make a cheap article, Mr. Guilleminot has not neglected the artistic side of his invention; and he has obtained numerous designs, notably from the Cluny Museum, by means of which he will be able to reproduce the most rich and varied styles of ornamentation. - Moniteur.

A Society, similar in character to the "Autotype Company of London," has just been organized under the style of the "French Autotype Society." The ateliers will be located at Suresnes, and will make for those photographers who send their negatives not only enlargements, but also all kinds of carbon printing.

Professor Charles F. Himes, of Dickinson College, Carlisle, Pa., who is well known to our readers, has organized a photographic class in that college, and places the photographic laboratory at the disposal of the scientific society, at hours outside of the regular work of its members, for the production of photographs which may be of interest to the members of the society, or to the alumni or friends of the college.

The work will be begun at once of making a series of photographs of the character alluded to, to include the historic pieces of apparatus in the possession of the college, groups of apparatus illustrative of particular subjects, original diagrams and illustrations from scientific books not generally accessible, engravings of distinguished men of science, views of the college grounds and

buildings, etc. These prints will be sold to purchasers at a low price. This arrangement will enable the students to have good practice, and also be a means of securing funds enough to enable them to procure more and more apparatus as they go on. An excellent plan.

Another candidate for favor among photographers is about to be offered shortly by Messrs. Scotellari & Veryck. If these gentlemen will be able to secure all that they claim, they will find willing patrons among the American photographers. Their announcement assures us that they can produce extra rapid products for photography, by which a pose of one second is sufficient for children's portraits, and from two to three seconds for adults. The head-rest business will be overturned and suppressed.

Among the means employed by these gentlemen is a patented sensitive stop, which is claimed to diminish by one-half the time of exposure. This stop is constructed and regulated so as to facilitate operation. After a too short exposure the cover is turned as many times as seconds are needed to complete the negative. One thousand francs are offered to any one who can prove that he can produce more quickly and as well with any other process.

Let us not be understood as indorsing the claims of these gentlemen. We promise to investigate them practically and thoroughly before we give our readers any opinion whatever upon the subject.

The Photogravure Process of Mr. Woodbury.—Pillaging in photography, we are sorry to say, is no new thing. Sometimes, however, it is the result of ignorance; it cannot then be called pillaging exactly; but there are times when one person will strive to maintain a claim for an invention which he well knows belongs to somebody else. Such is the case in the matter of the Photogravure process, which was invented by Mr. Walter B. Woodbury, of London, and patented in this country in 1872.

At about the same time, Mr. Woodbury sold his process to Messrs. Goupil & Co., of Paris, whose manager is Monsieur M. Rousselon, in whose hands it has been brought to considerable perfection.

This is not all, however. M. Rousselon now sets up a claim as the inventor of the process, and claims recognition as such before the French Scientific Society. Such a piece of plagiarism we have seldom witnessed, wholesale or retail.

Mr. Woodbury, of course, is compelled to assert his just claims as the inventor, and is supported by M. Leon Vidal, who, although himself an inventor of an improvement in this direction, stands up for Mr. Woodbury's rights, an act which deserves quite as much praise as that of the other gentleman does censure. As far as this country is concerned, we learn that the owners of the patent are pushing the process; likewise, that perhaps there will be a little contest in this country before long as to who is the right one to work the process and sell its products, and who is not. Those of our readers who frequent print stores can find examples of this process in considerable quantity, and very beautiful they are.

It is not a new thing for an adventurous photographer to take up the process of another and modify it, and then by sharp practice, and sometimes by an advantageous quantity of silver or gold, lay claim to the whole invention. Such conduct should be deprecated wherever met with.

In the Paris Moniteur de la Photographie of August 16th, 1877, Mr. Vidal makes known an important progress made by Mr. Monckhoven in carbon printing. It con-

sists in covering the pigment papers with a coating of porous collodion varnish by means of a special machine.

From this result the following advantages: 1st. Greater delicacy of the prints.

2d. Doing away with the collodionizing of the plates for enamel prints.

3d. Resistance to a much higher temperature of the water, which renders the use of these pigment papers possible in hot climates.

4th. Entire absence of all reticulation.

5th. No longer any defective adherence, facility of transfer, etc.

This improvement cannot fail to exercise an important effect in extending the carbon process.

# ADULTERATION OF NITRATE OF SILVER.

A LIVERPOOL chemist has written a communication on the adulteration of nitrate of silver by means of nitrate of potash. The author says that the nitrate can only be added in powder, because the two salts do not crystallize together; the nitrate of silver crystallizes in flat crystals; whilst the salt of potash takes the form of long needles. The adulterators add the nitrate of potash in powder, so that the presence of this salt cannot be determined by the shape of the crystals. In this case, by dissolving the suspected article in distilled water and allowing it to crystallize, an immediate indication will be given of the existence of this falsification.

# Editor's Table.

Mosaics for 1877.—So unexpectedly great has been the demand for *Photographic Mosaics*, that we have had to issue a second edition. At the beginning of the year we cut our quantity a little short, fearing that the hard times would prevent us selling them, but we find we made a mistake. The second lot is now ready, and those who have been disappointed in getting copies can yet obtain them, in making up their sets, to a limited degree. Dealers can also be supplied if orders come in early. This is one of the best editions of *Mosaics* that we ever issued, and the wise will secure it.

Mosaics, 1878.—We have this work in preparation, and as usual extend to our practical readers an invitation to send us such items of interest for its pages as they can spare; and we would add that we will be glad to have them early. As former contributors know, we bind a special edition, in cloth, which is called the contributor's edition, each contributor receiving a copy free of charge. Please send your contributions now, before you are busy.

PRICES REDUCED. — The Centennial Photographic Company desires to call attention to

their advertisement, by which it will be seen that they have reduced the price of their stereoscopic views to one-third less than they were, the price now being \$2 per dozen. The Company do this in obedience to the demands of the times, though they sternly and persistently resisted it heretofore, hoping that by setting an example of a comparatively new size at the higher price, that they could persuade the public to seek for something better, and to pay for it a remunerative price. Competition, we are sorry to say, has caused some publishers of stereoscopic views to cut each other's throats, especially when there is more than one in the same locality. The Centennial Photographic Company have no competitor, but they yield to the pressure of the times; and now we believe no photographer in the country could fail to sell a lot of them and make money, if he would keep them in stock and push them. A special trade circular is sent confidentially to all who deal in such goods.

OUR genial friend, Mr. J. H. Fitzgibbon, Permanent Secretary of the National Photographic Association, and editor of the St. Louis Practical Photographer, has accomplished his intended visit, going East instead of following Horace Greeley's advice, and has honored Philadelphia with his presence, likewise New York, Boston, etc., etc. So far as we saw, he looks fat and jolly as ever, and editorial cares do not seem to have worsted him any. We presume by this time he is back in his uneasy chair, glowing over the mass of items which he picked up during his journey, new advertisements, and cash account. We presume he will tell his readers all about his journey, and we shall have some rich developments. We understand that he was in consultation with the members of the Executive Committee of the N. P. A., and proposed another convention sooner or later. We are glad to see him showing some life in this matter, and wish him success in everything that is good and right.

A Kindly Word.—We do not profess to have so much of the ingredient called modesty in our composition as not to enjoy an occasional good word; and it is not our practice when we get a good thing to try and prevent others sharing its enjoyment; therefore we print the following from one of our readers, who says: "With my taste and ambition to know everything knowable on the subject of photography, I would take your journal at ten dollars a year rather than not get it. The illustrated articles in the last November and December numbers were so valuable to me, that I wrote to a friend that he must get it. He

wrote me afterwards, thanking me for the sug gestion. It was worth its weight in gold, and I will add, that while the mere taking of your magazine does not tend to constitute a fair artist, yet I cannot call to mind a good artist that is at the head of his profession in his locality who does not take your magazine. As you know, I travel about from place to place, and have opportunity to find this out." Of course we are glad to receive such kindly news as this. While we might cater to a degraded taste, and thus secure subscribers from a different constituency, it has always been our determination that if we could not do the best we know how, we would not do at all. We hope the course we have taken may continue to be supported, and that those who are now not at the top of the profession, may be in a measure persuaded by our humble efforts.

A Good Offer.—As we have announced by a circular to a number of our friends, we are willing to send to all subscribers who send us their money within the next ten days, for 1878 subscription, namely, \$5, to give the three remaining months for this year free. We earnestly look for a good patronage from our old friends during the coming year. We have many new things in preparation for them, and if we are to be supported in the course we have taken in their interest and for their service, we hope for a substantial evidence of it now. May we not have it?

Another New Gallery,—Mr. Isa Black, of Franklin, Pa., called upon us a few days ago, and gave us a description of a new and beautiful studio which he has been recently erecting and furnishing. We are glad to know that Mr. Black's excellent work has been so largely appreciated as to enable him to give such substantial evidence of his prosperity; and it is invariably true, that if a photographer pushes properly and makes good work, that he will grow just as Mr. Black has grown. We wish Mr. Black much success.

Now Open.—These are the words which head a circular emanating from the studio of our good friend, Mr. T. N. Gates, of Westboro, Mass. After a four years' absence from Westboro, Mr. Gates has returned, and fitted himself a very beautiful studio, with accessories and apparatus and instruments of the best and most perfect patterns, such as will make the citizens of that place wonder and praise. Mr. Gates's experience abroad, and during the Centennial Exposition in Philadelphia with the Centennial Photographic Company, will enable him to produce the very

best and most artistic work possible, for he not only has the facility, but he has the ability, and will, we have no doubt, distinguish himself more than ever in the art which he so enthusiastically pursues.

Another New Gallery .- Another evidence of prosperity in Philadelphia is shown through our friend Mr. William H. Rhoads, a gentleman well known to many of our readers personally, who has recently fitted a first-class studio at No. 1316 Girard Avenue, Philadelphia. Mr. Rhoads already has a model establishment at No. 1800 Frankford Avenue, but a personal visit to his new studio convinces us that he not only excels in the quality of his work, but also in the faculty of fitting up a photographic studio right, making it both comfortable to his patrons and to his operators. There is every convenience here of accessories and instruments and light that could be asked for. He also has our very best wishes for his prosperity.

Mr. C. E. Orr, of Sandwich, Ill., receives from the local paper a very interesting notice, upon which we congratulate him. We like to see photographers who seem to strive for excellence, as he has tried to do, get the approval and goodwill of the public press as well as of the public. The paper mentioned says that "Mr. Orr is without doubt the best artist this side of Chicago, and not excelled there."

PICTURES RECEIVED .- From Mr. H. R. Farr, Prairie du Chien, Wis., a number of stereoscopic views of an artesian well and the pictured rocks near that city; also some examples of his studio work, which show considerable taste and care in manipulation. From Mr. Frank French, Pecatonica, Ill., the picture of Mrs. Mary Sprague, an old lady 103 years old, of which Mr. French says: "We had quite a time to get her picture, as she had not the slightest idea what we were going to do, as photography was in its infancy when she was last able to see to read, or hear others tell of it, she now being both deaf and blind." From Mrs. M. E. Lockwood, Ripon, Wis., promenade pictures of beautiful young ladies, which are very tasteful and pretty. The negatives are excellent, the posing artistic, and the printing in keeping with the rest. We do not wonder at the prosperity of Mrs. Lockwood and her husband, if they are able to turn out continually such work as this. From Mr. J. B. Marshall, Gold Hill, Nevada, a very interesting reproduction from a made-up picture, called "Mining on the Comstock." We have shown here everything in the process of gold mining, from the tools which are used to the actual work of the miners on the ledge. The picture also includes several mills, interior and exterior, a picture of a miner in working dress, and a side view of the ledge, with various tunnels exposed at one end, showing the method of gold mining. From Mr. J. E. Beebee, photographer, Indiana Avenue near 22d Street, Chicago, a number of very beautiful cabinet pictures, the first we have received from the studio of this gentleman, and therefore a great surprise to us. We know not whether Mr. Beebee be a young or old photographer; whatever he may be, be rest assured he has shown all the industry of a double champion of industry in his work. His compositions are very natural and graceful, his light in most cases excellent, and his printing in the highest style of the art. It is refreshing to see such examples of work, and we indulge the hope that Mr. Beebee will be one of the competitors for our next prize.

Correction.—In our last number, "Camera," of Middletown, N. Y., advertised a gallery for sale, and our types made a blunder with reference to the receipts. Instead of saying they were large, it should have said they were the larger. We are assured by the parties, who give good reference, that the gallery is a positive bargain for any one wishing a gallery for a comparatively small investment now paying well. The advertisement is repeated this month.

R. R. R.—In Mr. Gihon's article of last month two or three grievous mistakes were made. On page 82 he is made to say that "Iron-clads are after all the best thing in the world." Insert the word not after the word are, which makes it on the contrary quite the reverse. On the same page, "primed with ammonia" should read "fumed with ammonia."

Chute's Centennial Photographic Diary.—Mr. Robert J. Chute, whose name is well known to our readers, ventured last year to prepare with great care and explicitness, a work which he called a diary. It had in fact a diary under its cover, but it is a first-class book of practical photographic hints, such as the old worker or the new will find very valuable.

In order to rid himself of the superfluous copies, Mr. Chute offers them at a little over the cost of cover and postage. We believe only this offer is needed to be made known, to make the balance of the edition leave his hands in quick order. Please refer to the advertisement.



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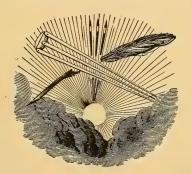
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# DEVOTED TO PHOTOGRAPHY.

EDITED BY EDWARD L. WILSON.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

November, 1877.



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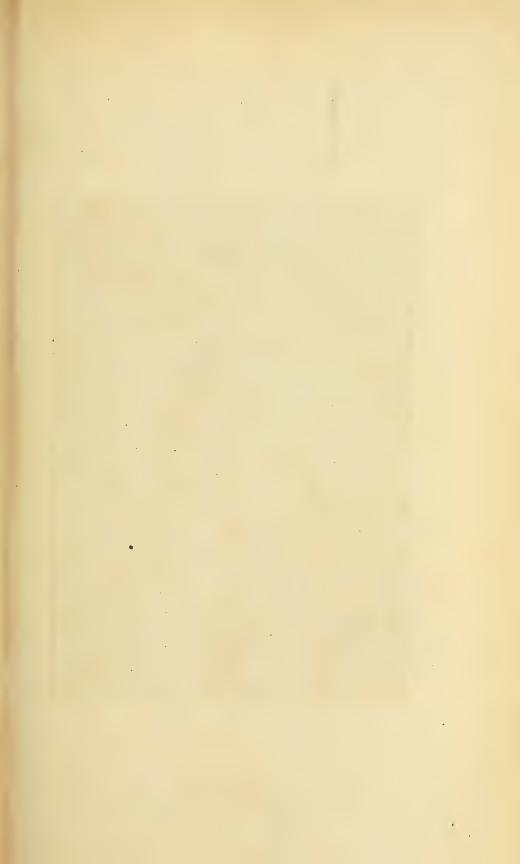


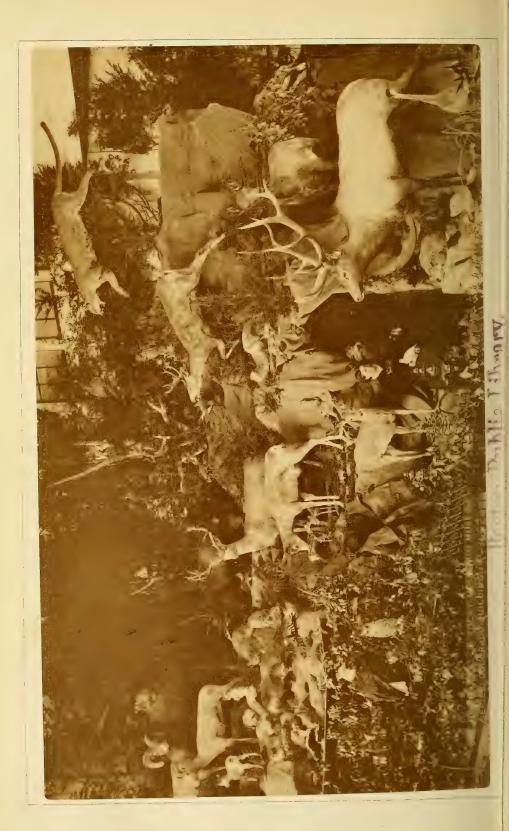
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# Philadelphia Photographer.

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# THE LATE W. H. FOX TALBOT.

One by one our photographic fathers are departing. Following the other two members (Niépce and Daguerre) of that grand old trio to whom photography owes its existence, Mr. William Henry Fox Talbot, F.R.S., at the ripe age of seventy-seven, "rests from his labors," having died at his family residence, Lacock Abbey, Wilts, on Monday, the 17th instant.

Mr. Talbot was born in Dorsetshire, in 1800, and up to the age of thirty-three he passed his time very much in the manner one expects of a man of cultivated scientific and artistic tastes, and possessing the means of indulging in those tastes to the fullest extent. At that period it was customary for those who travelled abroad, and whose desire to make sketches of scenes met with in foreign travel transcended their ability to execute them skilfully, to carry with them a camera lucida—a small prismatic instrument which, when fixed to a table, enables any one to draw with accuracy the particular scene to which the instrument is directed. It was when amusing himself in sketching, by the aid of this instrument, the scenery on the shores of the Lake of Como, in 1833, that Mr. Talbot first experienced a strong desire to make science a handmaid to art, and to find some means by which the beautiful transcripts of nature to be seen in the camera obscura—which instrument he also utilized in connection with art-might by chemical agency be made to record themselves, if not in colors, at least in light and shade. To accomplish this object Mr. Talbot set himself to consider whether it could be effected by any of the chemical processes then known. Now what at that epoch was known? Thanks to Scheele, certain properties possessed by chloride of silver when exposed to light had been discovered and recorded. Writing just one hundred years ago (Traite de l'Air et du Feu, 1777), that savant says: "It is well known that the solution of silver in acid of nitre poured upon a piece of chalk and exposed to the beams of the sun, grows black. The light of the sun reflected from a white wall has the same effect, but acts more slowly. Heat without light has no effect on this mixture." Scheele also discovered that it was to the violet and blue rays of the spectrum that this change was due, and not to the more luminous yellow or red rays.

Various applications of this discovery were made by Wedgwood, Davy, and others, the chief results obtained being the production of profiles upon white leather that had been washed with nitrate of silver, this being produced by allowing the shadow of a rigid body to fall upon the leather when placed in the sun. But no means of fixing these shadowy pictures were known, hence the pictorial results of these two experimentalists had to be kept shut up in a drawer.

At this stage of such peculiar scientific knowledge Talbot entered the field of research.

The various steps through which Mr. Talbot's earliest experiments were conducted may be summarized as follows: First, he tried simple nitrate of silver solution brushed upon paper and dried, but this was found to darken too slowly. Next, he spread chloride of silver upon moist paper, but this also proved unsatisfactory. He then discovered that the best way by which to prepare chloride of silver was by double decomposition, the paper being first impregnated with common salt and afterwards with nitrate of silver. He discovered in the course of these experiments that in order to obtain the highest degree of sensitiveness with this preparation, there must be an excess of nitrate of silver allowed to remain in the film. On paper prepared in this manner Mr. Talbot obtained numerous pictures of flat objectssuch as leaves, lace, and analogous objectsby superimposing them upon the sensitive paper and then exposing them to light. But by means of a modification of this processthat is, by giving two successive coatings of chloride of silver with nitrate in excess, and making use of the paper while in a moist condition-images were at length obtained in the camera obscura, although a long exposure had to be given. This was accomplished in 1835, and an account of the experiment will be found in the Philosophical Magazine at that period.

Previous to this time some of the properties of iodide of silver had been investigated by Talbot, who did not then discover anything sufficiently tempting to induce him to continue in this line of inquiry. Up to 1840 other duties undertaken by Mr. Talbot pressed for attention in competition with his photographic experiments. Bringing to bear upon his researches into the primæval antiquities of Greece and Rome all the scholastic powers of a cultivated mind which had secured for him the wranglership in mathematics at Cambridge, and the Chancellor's medal in classics, he contributed much to philological and archæological literature. In 1839 the London newspapers and scientific periodicals contained accounts of Mr. Talbot's progress in securing the images of the camera. This occurred under the following circumstances: In January, 1839, the discovery of the Daguerreotype was suddenly announced to the world. It was accompanied by no explanation of the means employed, which were kept a profound secret. As there was some reason for supposing that it was the same discovery, or nearly so, as Talbot's, the latter, by the advice of his friends, immediately published his discovery in some of the leading newspapers of the day, the Philosophical Magazine, etc. He likewise exhibited a large number of pictures and other photographs at an evening meeting of the Royal Institution, and read a paper on the subject before the Royal Society on January 31st, 1839, in order that, if the discovery proved to be the same, he might at least demonstrate that he was an independent discoverer. However, as every one is now aware, it eventually turned out to be wholly different.

Talbot's great discovery was made on the 7th of September, 1840. By this discovery the whole aspect of photography was changed. The process was one to which the discoverer gave the name of the "calotype." He found that, when the paper was impregnated with iodide of silver, and excited with nitrate of silver and then placed in the camera, it was not necessary to wait until the image became visibly impressed, but that if removed from the camera in a state of apparent blackness, and without the appearance of the trace of an image, it would, if treated with a solution of gallic acid, disclose such image with a greater degree of force than if it had been exposed for many hours, the vigor of the image going on increasing under the action of this developer until at length it was sufficiently strong to print from. By this discovery the progress of taking views was accelerated upwards of a hundredfold; for, by an exposure of one minute, a view could now be secured possessing as much vigor as that previously obtained after an exposure of two hours. Finding that fogging of the image was very apt to take place, Mr. Talbot traced this evil to its source, and, by the introduction of acetic acid into the developer and sensitizer, he overcame the difficulty.

By the calotype process—which, in honor

of its discoverer, was afterwards designated "Talbotype" -- portraits possessing great beauty were taken from the life, and we have now in our possession landscapes, studies, and views of various kinds, which will bear favorable comparison with some photographs, at least, which have been adjudged worthy of a place on the walls of photographic exhibitions held within the past few years. In sharpness (although the negatives were taken not on collodionized glass, but upon paper), in brilliance (notwithstanding the prints were produced upon plain and not upon albumenized paper), and in tone (although the "toning" of photographs had not then been heard of), the early pictures of Mr. Talbot-those, for example, to be found in some copies of the Pencil of Nature—these early productions, we repeat, of this old master, when examined side by side with those of the present time, compel the admission that "there were giants in those days."

The Pencil of Nature, to which we have alluded, is a fine quarto volume, published by Longmans & Co., in 1844, and is, without doubt, the first work ever illustrated by photographs. It may be described as a series of twenty-four photographs, of dimensions ranging from half plate to whole plate. The subjects are varied. . Each picture has a descriptive chapter of letterpress, and there is an introduction giving an outline of the process employed and the steps which led to its discovery. On one occasion, when conversing with Mr. Talbot with respect to the fading of prints, we showed him our copy of the work in question, and directed his attention to the fact of several of these pictures having faded towards the margins while the middle portion was in excellent preservation. In reply to our question regarding the method by which the prints had been washed and mounted, Mr. Talbot informed us that after having been fixed in a solution of hyposulphite of soda, they were transferred to the first of a series of six or eight vessels of water, and after remaining in it for a short time, they were transferred to each vessel in succession. With regard to the mounting: this had been done by a bookbinder, who employed the paste used in his trade, which contained a large quantity of alum, and this, generating acid, had eventually destroyed those portions of the prints with which it came in contact; for, by a fortuitous piece of luck, Mr. Talbot had instructed the bookbinder to paste the pictures to the mounts by the margin only.

In 1843 Mr. Talbot visited Paris, and demonstrated his process to artists and amateurs of the Daguerreotype process, which was at that time becoming well known. For nearly two weeks Mr. Talbot gave an almost daily series of short lectures, accompanied by practical tuition in the new method of taking pictures. Numerous modifications of the original process were introduced by Mr. Talbot. For example, his camera process was, as we have seen, a negative one, from which negatives, by a species of chemical printing, positive proofs were taken on paper possessing less sensitiveness than was necessary for obtaining the negative. He set to work to discover a process by which positives could be secured in the camera by one operation. After numerous experiments he at last discovered the means by which this could be done, and of which the following is an outline: A sheet of iodized paper is excited with nitrate of silver, and, when dry, is exposed to light for a moment. It is now immersed in a solution of iodide of potassium, and dried. After exposure to light for one or two seconds its whole character becomes changed, for if exposed to the action of a developer it would not darken as before. While, therefore, the paper has been treated with the iodide it is placed in a camera, and the light it there receives prevents certain portions, in proportion to the luminous action, from being blackened by the subsequent action of the developer, while other parts become black. The exceeding value of this discovery, upon which we cannot now dwell, will be apparent to every scientific reader.

Having discovered a very rapid albumen process upon glass, Mr. Talbot, in 1851, tried in the laboratory of the Royal Institution, the following remarkable experiment: A printed paper was fastened to a circular disk, which was caused to revolve very rapidly by means of suitable wheels and machinery, and a camera was so placed as to have this paper in its focus. The room was then

darkened and the wheels set in motion; and when the disc was spinning round with the utmost velocity capable of being attained the camera was opened, and the large electric battery belonging to the Institution was discharged. (It has since been found that the duration of the light produced by the discharge of a Leyden jar is about the tenthousandth part of a second.) Upon the photograph being developed it showed an image of the rotating printed paper quite sharp and clear, as if it had been motionless during the whole time of the exposure. We do not consider it necessary to give the details of the process by which the plate was prepared, suffice it to say that the albumen was salted with protoiodide of iron, sensitized in a seventy-grain bath, exposed wet, and developed by a strong solution of protosulphate of iron.

Passing over a number of interesting researches, we arrive at the last great discovery by Mr. Talbot—that of photoglyphic engraving. Recollecting what had been published in the Transactions of the Royal Scottish Society of Arts by Mr. Ponton, in 1839, with regard to certain properties in bichromate of potash, Mr. Talbot, in 1852, made experiments with a view of discovering whether, by means of a thin coating of gelatin and bichromate of potash applied to a metal plate, he could not produce a surface that would become hardened in some parts, so as to resist the action of an etching solution, remaining in other parts permeable by such solution. These investigations were crowned by the discovery of a singularly delicate and beautiful method of producing engraved steel plates, in which all the details were faithfully rendered, But this very delicacy and perfection prevented the process from coming into general use, owing to the great care required in the printing of impressions. However, it paved the way for other processes which are now employed commercially.

From what we have written our readers will perceive the important extent to which photography has been indebted to this veteran experimentalist.

Regarding his social life we have little to say. He was a descendant of a branch of the noble house of Shrewsbury. As a land-

lord he was beloved by his tenants, who never applied in vain to him for advice or assistance in their troubles. He was somewhat brusque in manner, but possessed a kindly heart. He seemed to prefer downright contradiction to anything that partook even of encomium; and when, in 1863, we first made his acquaintance, that trait in his character was developed to a most noticeable extent. In a manner that we thought decidedly "snappish"—and that at our first interview with him-Mr. Talbot almost demanded our opinion of a photoglyphic portrait of Sir David Brewster he had recently executed, inquiring whether we had ever seen anything finer. We had many times. "Do you know," he almost thundered, "that Sir David Brewster, Mr. Cosmo Innes, and numerous other men capable of judging have pronounced that to be the very finest engraving I have ever produced?" We replied that we did not care what were the opinions of these men-the picture was not the best that he had produced; not only so, but it was very, very far from being equal to others of his pictures—that, in point of fact, it was the worst photoglyph we had ever seen, scarcely reflecting credit upon the advance he had already made. He stared for a moment, as if totally unaccustomed to have his works criticized in such a rough fashion, and, after a few words, he explained that his own opinion entirely coincided with ours; the picture, in his estimation, was a very poor one, but we had been the first to have the honesty to say so to his face. And thus was the ice broken. We have now in our possession a very large packet of letters received from Mr. Talbot at various intervals since that period. When we last conversed with him we understood him to say that he either had been, or was about to be, engaged in experiments with a view to obtain photographs in natural colors. Alas! that "slow-consuming age" should have overtaken the venerable savant before he solved this problem; for no man was better constituted than the late Mr. Fox Talbot for undertaking investigations in heliocromy.

The remains of the deceased scientist repose in Lacock Cemetery. The funeral, which took place on Friday last, was numerously attended by the tenantry, tradesmen,

and neighboring gentry. All the shops in the neighborhood were closed, and a muffled peal was rung as a last mark of respect to the lamented gentleman.—British Journal, Sept. 28th.

# FADED PERMANENCY.

BY E. Z. WEBSTER.

I mail to your address, and hope you will receive, specimens of the so-called "permanent photograph" or fadeless carbon picture.

The name of the artist who produced the same, the descriptive title, and all necessary information concerning the origin of this particular picture, is conspicuously displayed upon the *showbill* on the lower margin or border of the same, which, by the way, is a style of advertising which the patrons of the art ought to appreciate, as it enhances the beauty and picturesque effect of the portrait.

This specimen of "permanent photography" was made only a few months since, and incidentally came into the possession of Mr. Kenyon, a veteran photographer of New London, who merely to satisfy himself in regard to the boasted permanency of this style of picture, placed it in his printingroom in strong diffused light, not direct sunlight (having covered one-half of the print with a piece of cardboard, held in place by a common clothes-pin). A very perceptible change took place immediately, and in a few weeks the picture became what you now see.

The lower portion, which was exposed to the light, has lost that "warm glow" of the chromo, and the type has assumed that ashengray hue which always precedes the coming dissolution. I believe the Autotype Company have a special patent for that beautiful permanent tint in tissue; but aut-a-type to fade so soon? The entire picture has lost brilliancy, but more decidedly upon the lower portion, where you will also notice that the tissue has begun to crack and pull apart in scores of places, and soon would scale off and destroy the picture entirely.

Now, Mr. Editor, it seems tolerably impudent for the Lambert lice-encees to call us to account for "palming off our fleeting, shadows upon a long-suffering and helpless public," when, by adopting their noble ex-

ample, we might embalm the features of our patrons in everlasting pig-mented glue.

The carbonites may say that the fading of one picture ought not to condemn the whole, but as that is the only one which has been tested so far as I know, it proves that all are liable to fade, and to call such pictures "permanent" is an imposition. Mr. Leighton, who is a skilful photographer in this city, placed a fine chromotype in direct sunlight with one-half covered, and a decided change was perceptible with only one day's exposure.

Now if any one doubts these things let him try the experiment, and "see how it is himself." We do not expect the Lambertypers to confess, but those who are not in the ring can satisfy themselves.

At my door there are scores of silver prints, some of which have been there two or three years, and none less than four months, and there is not a print among them which has faded more than the "permanent chromotype" which I send; and some of those pictures are exposed to the direct sunlight from morning till noon every day.

I have made a pretty general inquiry, but can hear of no Lambertypers who are working the process this summer in New England, except Messrs. Allen & Rowell. Perhaps a good sharp rowel properly manipulated might keep some others at it, but the warmth of summer overcomes the permanentites, and, like oysters, there seems to be a part of the year when "permanent" pictures are not in season. We would advise the Lambertypers to adopt the migratory habits of the goose, and fly away to more congenial climes during those months which are spelled without an R.

But, after all, I do not wish to say a word that will hurt the feelings of any one who has been deluded into this Lambertype business under the impression that this was really all that Lambert and a few enthusiasts proclaimed it to be. My remarks are intended only to apply to those who have made themselves particularly obnoxious by persistent efforts to injure our business, and abuse every one who ventured to express an opinion which did not accord with their wishes.

This everlasting harping about "permanency" applies more to the harping than

to the pictures, and I doubt if there is one among all those who are blowing the horn of "permanency," who would be willing to expose their choice carbon pictures to a strong light for any considerable length of time, unless duplicates could be easily obtained. Everybody knows that atmospheric influences and changes of temperature are much more destructive of carbon (more properly gelatin) tissues than of silver prints.

Finally, if a strong diffused light will fade a "permanent" carbon print half out in a few weeks, how long will it take to convince the public that silver prints are a fraud, but glue-types are a "thing of beauty and a joy forever?"

BLISTERS.

EVERY now and then some scientific photographer makes a discovery of real merit. The majority of scientific photographers, however, prefer to discover things that everybody else has been long ago familiar with, such as yellow spots and white spots upon the photographic prints; that cyanide is more energetic as a fixing solution than hypo under certain circumstances; that too much silver in the nitrate bath is just as bad as too little; that not half the waste silver is saved by photographers that could be saved, although their methods scarcely develop enough to make a pin's head; that starch paste is poisonous, and that a roller press is better than a burnisher; and that there is only one infallible cure for blisters.

Such useless discoveries do not reflect very much credit upon science, especially when compared with the discovery of such intense interest as that of the scientific photographer who has just announced that he has found out the precise nature of the blister. Most photographers think that they already know what a blister is, and if pushed for a definition will tell you that it is the result of careless manipulation. Of course this is no definition at all; it neither explains what a blister is, nor what it may grow to be, but only how a blister is produced, and then very indefinitely and very unsatisfactorily.

If any man should attempt to define the policy of the photographic burglar by saying that its result will be to make six poor photographers poorer when it benefits one, he would commit the same mistake of confounding cause and result; the scientific mind does not make these blunders. When Mr. Lambert thoughtlessly sat down on Madame Lambert's charcoal furnace in Paris, he undoubtedly learned what one sort of a blister was, and when he applied to licencees for the payment of their notes, and was refused, he doubtless felt at the ends of his ears something very similar to that which is caused by a blister.

The blisters that we desire to treat upon, however, do not come under the class of blisters which cause the object to which they are applied to be singed, and therefore, if Mr. Lambert were asked to define a blister of the kind we allude to, he would, with his accustomed modesty, have to reply that he could not do it. Patriotic American photographers will be glad to know, however, that what Mr. Lambert and all the other foreign photographers confess themselves unable to do, has just been done by an American scientific photographer whose name we think it best to withold just at present.

This bold person has been blistering himself with all sorts of things upon the accessible places of his person, solely in the interests of photography, claiming as his theory, that if a blister may be raised in a certain way on one object, why cannot it also be raised in the same way upon another. He has learned thus by experiment that a blister, whether it be upon the body physical or upon the albumen print permanent, is always disagreeable, and when that fact was fully impressed upon his mind, he proceeded to inquire what a blister really is when viewed from a photographic scientific standpoint. It was not long before he was able to answer this question. He found that extreme heat when applied to the surface of the body solidifies the fluid within the perspiratory ducts, and this solid substance pressing upon the nerves produces the blisters with painful accompaniments.

Thus arguing, his next procedure was to discover what substance would relieve the trouble. Common baking soda he found would relieve the physical blisters; why then would not some sodorific compound relieve

the photographic blisters or cause them? Going back to his theory, that a blister upon the body is caused by heat, why are not blisters upon photographs caused by the exposure of the albumen paper to the hot sunlight, and then with a little time intervening, submit them to the cold embraces of hyposulphite and toning solutions; or, if paper is brought from a cool temperature after silvering, without artificial drying or warming, and is exposed to the hot sun suddenly, why are not blisters also caused in that way?

So confident was our scientist of the remarkable truth of this series of discoveries or inquiries, that he presented himself before the St. Louis Society a few afternoons ago, and in their presence exhibited some of the results of his experiments of both kinds. This great moral spectacle of a scientific photographer in the act of blistering himself and his prints was largely attended by an interested audience. One cannot get full details from the indolent secretary of this association, but from the local papers we learn that all the photographers and editors of the neighborhood are experimenting in this direction. This new theory of the nature of a blister has been so clearly demonstrated, that it is impossible to doubt its truth.

It has also been asserted with great confidence by some members of the society named, that if we carefully remove the albumen from the surface of our paper, we can expose it to the warmest sunshine, and directly afterwards to the coldest hyposulphite solution, without any fear of blisters. It should be said in justice to this bright luminary in photography, that he entered the profession as an amateur since 1860, when albumen paper came into general use.

It is evident to every one that a piece of albumen paper deprived of its albumen would be absolutely blister proof, and this shows one way of avoiding blisters, but we think the suggestion of our scientific photographer is more to the point, and that blisters are no doubt largely caused by sudden changes of temperature in the process of manipulation, so to speak. We think it even important that paper should be properly tempered before silvering, and that care

should be given in all the different stages of manipulation, where great and sudden changes of temperature are liable. We do not argue, as did some members of the society mentioned, that when a scientific theory has been conclusively demonstrated, that all alleged facts that conflict with it should be disregarded, for we have had recently many suggestions as to how blisters might be cured, all of which are about as useful as receipts for curing the hay fever.

That the plan suggested for removing the albumen will be the most effectual we admit, but the result in future, even our scientific friend will see, will not he acceptable to the public. The blister trouble seems to be one hard to overcome, and we hope our friend will admit it as such. Hereafter, all prudent photographers will take such means as will act as preventives in the matter of blister production, thanking our friend for his great discovery, inasmuch as the season for blisters is approaching, and no one can tell how soon they will not be as plentiful as grasshoppers in Minnesota.

# PHOTOGRAPHIC PROCESS GIVING HALF TONES.

[Translated for the Philadelphia Photographer.]

Paper Presented to the Belgian Association of Photography.

THE print which, thanks to your kind proposition, I have been enabled to place before you, requires to be accompanied with a previous explanation on account of its numerous imperfections.

The photo-typographic reproduction of any object with all the effects of light and half-tones is, without doubt, the desideratum of photography of to-day—desideratum difficult to realize, and which justly preoccupies all those who are now working for the progress of that branch so vast, and at the same time so interesting to modern science.

If, unfortunately, the official work with which I am interested does not allow me to follow up the experiments relating to the solution of so important a problem, I owe, nevertheless, to them the possibility of making certain experiments, the result of which is now given to the readers of your journal. Although this production has in itself but

little value, it may perhaps serve as an encouragement to those who have not yet sought in their investigations the solution of this problem.

A few months ago I had the honor to communicate to the French Photographic Society a description, accompanied with numerous prints, of a special process based upon the use of bitumen of Judea, to which a powdery substance has been added, soluble in water or nitric acid.

This process gives the reproduction of half-tones sufficiently fine to afford the hope of its profitable application to the reproduction of a great number of natural objects, when it shall have been rendered more perfect by a more thorough study.

It is by this process that were made in the photographic service placed under my direction, different reproductions of fossils, prehistoric objects, etc. These experiments lasted, however, but a few weeks; I was obliged to give them up, not only on account of a voyage I made by order of his very faithful Majesty, but also because it was very difficult for me at that time to find a person who could, with some chance of success, continue the experiments and investigations which absolute necessity forced me to abandon.

This is the reason why this process has not been perfected, and has remained sta-Upon my return to Portugal, towards the middle of August of last year, and having terminated the installation of the new ateliers of the photographic service of the general direction of Goodesick works, I decided to take up again my former experiments in typographic photo-engraving with half-tones, which I did at the commencement of the present year. The print that accompanies this notice is one of the first results of my experiments, or rather of the experiments which I caused to be made. It is to Mr. Jean Rudin, our workman, that I owe in a great measure its success, for it is from the chemical engraving that depends without doubt the possibility of the practice of a process which I believe to be easily improved and practically worked.

Since January, 1876, I have endeavored to introduce and establish (in the department that I have the honor to direct) a spe-

cial process of helio-engraving on copper (copper plate), which, although excellent for different kinds of work, yet to-day does not appear to me to be the most useful in a large geographical establishment. Imperfect in the reproduction of half-tones, it excels nevertheless in the reproduction of lines and other details of geographical drawing.

The process may be resumed as follows:

A copper plate, very plane and highly polished, is covered with a thin coating of gelatin mixed with bichromate of potash. If this plate is simply destined to reproduce lines or dots, it receives no other preparation before the application of the sensitized coating; but if it is to reproduce half-tones, it is first covered with a certain quantity of very finely powdered resin. This substance, by its adherence to the plate, by using a gentle heat, causing a commencement of fusion, produces superficial reservations, which are the first cause of the kind of granulation which is to result later on from the operations of the engraving properly so called.

It is this last mode of operating which is specially allied to the process which is the object of this little notice.

The plate, having been exposed to the sun or electric light, under a positive cliché made by juxtaposition, is, after the operations of varnishing, etc., acted upon by a more or less concentrated solution of perchloride of iron, which, reacting on the gelatin protected from the light, penetrates this sensitive film in the parts more or less exposed to the sun, and eats into the metal in an inverse ratio to the luminous action. This permeability of the gelatin, which is in proportion to the more or less great opacity of the half-tones of the cliché, aided by the chemical action of the mordant, which reacts so much the more and so much the faster in proportion to the weakness of the action of the light or the mixture of gelatin and bichromate which covers the plate, gives rise to the production of the half-tones caused by the granulation of the metallic

This granulation, although uniform, produces tones more or less dense, according to the depth left by the interstices which exist between the particles of resin adhering to

the plate; particles which protect the subjacent parts from any change.

Resin is indispensable for reproducing half tones, as without it the corrosion of the copper, although up to a certain point, in proportion to the half-tones of the cliché, will not be accompanied with sufficient roughness of the surface to retain the ink and allow the printing of the engraving.

I have remarked, however, that the resin rarely gives vigorous tones and at the same time softness in the half-tones.

Seldom does the print possess the required intensity; and when it does the contrasts are almost always exaggerated and inartistic. This results in a certain measure from the want of proportionality between the granulations of the plate and the effect which the different parts of the drawing should present.

It is to be remarked, however, that this defect—the want of effect of the image—may be lessened if the perchloride of iron is caused to react at different degrees of concentration on the same film of impressioned gelatin; or better still, if several engravings are made on the same plate by means of divers clichés, which should only differ from each other in the proportionality of the tones, for some will be destined to the production of intense blacks, the others to the production of half-tones.

This last method which requires the repetition of the series of operations just described, since the first engraving is completed, it is necessary to proceed with the same plate for the marking of another engraving by multiplying the action of the mordant, has the defect that it cannot be used except by very skilful operators, and that it requires a perfect and absolute superposition of the images which is not always easy to obtain.

Jose Julio Rodrigues.

—Bulletin de l'Association Belge.

(To be continued.)

Mosaics for 1878 is well under way, and bids fair to exceed any of its predecessors in readable and instructive articles. Photographers and others wishing this valuable work should send in their orders at an early day.

# R. R. R.

RAMBLING REMARKS RESUMED.

BY JOHN L. GIHON.

(Continued from page 304.)

I ANTICIPATE the publication of a new series of articles, which will consist of selections from the diary that I have attempted to keep, and which I hope will contain some few scraps of information—beneficial to those who are willing to learn from the experience of others.

I find that I have written monthly, and during the entire year, an account of the doings of the Centennial Photographic Company.

I have endeavored to incorporate in my wordy phrases such items as would be useful, and I have also striven to give an impartial history of the manner in which our art has been prosecuted when conducted on a scale more extensive than it is likely we will ever reach again.

I have described to you all of the rooms in which the multifarious operations were performed, and I have endeavored to explain all of their workings.

Our technical terms of operating, printing, and finishing, have all been consecutively treated of, and I think that I have said all that I know about the matter.

Now, that the pictures are supposed to have been made, there remains the very grave consideration as to know what to do with them when manufactured at the rate of so many thousand per day. The natural experience is that, either the stock would accumulate to an undue extent, or that the demand was excessive.

The latter supposition is the correct one. The majority of all of the visitors to the "Great Show" wished to carry away with them some suitable relic. Photography supplied the possibility of their doing so.

Everything of note or of value was faithfully pictured, and the possession of a collection representing the particular objects in which one took the most interest has now become invaluable to the owner.

To supply the wants of the public, it was necessary to establish accommodations on rather an extensive scale, therefore every one of the leading buildings had in it neatly arranged tables or other contrivances where the photographs were sold. I sometimes used to wish (from the opportunity that it gave of studying human nature) that I was a saleslady behind one of those stalls. Every nationality in the world was represented by the customers, and one young lady—an attendant—who is particularly gifted with the art of mimicry, has given most amusing descriptions of the dialogues to which she was daily subjected.

Of course, the main disbursing depot was the "studio" itself, and it required considerable management and tact on the part of employés to prevent confusion.

The walls were encompassed by a succession of shelves or pigeon holes, in each one of which were supposed to be prints from negatives numbered in correspondence to spaces. Many purchasers are sometimes importunate and hard to please, so that when samples from the hundreds and even thousands named on the catalogue were respectively presented, it became a somewhat serious difficulty to rearrange the collection after selections had been made.

The trouble was obviated to a certain extent by having sample books containing an impression from each subject photographed. I know that it is a great aid to his business, and I think that it is almost the duty of a photographer to keep a veritable scrap-book, in which there should be placed a proof from every plate he makes. These proofs, even, sometimes become valuable, because in the case of the accidental destruction of a negative, we still have something from which we can work.

It is almost impossible to believe the experiences of a practical operator and colorist in the relation of the task which he has undertaken and accomplished. It has been but a week since I had a peculiarly distressing case. There is a style of picture made, and now unjustly popular, known by various names, such as the "Crystal Ivorytype," the "Photo-enamel," etc.

It consists of a photograph that is sealed or attached to a rounded or convex glass by means of an ordinary starch paste. When dry, the main body of the paper is rubbed away by *friction*. (Those of you who attended the last convention of the N. P. A.

are aware of Mr. Wilson's advocation of the term.) The result is best accomplished by the ordinary emery cloths that you can purchase from any dealer in hardware. Then, when you have what you might term a translucent film with a picture upon it, fastened to the surface glass, you place behind it, but separated from contact by a couple of strips of cardboard, another glass, and it is upon this latter that the painting is done. The method of coloring (THAT means the daubing) is so exceedingly simple that the most inexperienced person can learn it in a very few hours.

The inventors, patentees, or licensors of this particular process claim that they can make perfect artists from whoever will pay them a tuition fee.

The colors that are used are ground in oil, and as they are generally furnished by the professor (?), they are selected with more reference to the economy of the material than to the utility of the article.

A picture finished in this way had been elegantly framed and "dropped" from the wall. The result was a chaotic mass of broken glass, with the semblance of attachments of pieces of a spoiled photograph which were brought to me. The party who desired the duplication was willing to pay any price, so that it became merely a matter of ingenuity as to the accomplishment of the purpose.

I solved the problem *successfully* by first making a copy of the fragments, then working upon this latter with India ink, and finally producing a *re*-copy.

This last paragraph is rather a diversion from the subject, but yet may be allowed. My object is to urge the importance of the resuscitation of all faded, defaced, or apparently worthless pictures that are left to our charge.

In regard to the final distribution or sale of the pictures which were made, I know very little; my province remained simply to the aid of the manufacture. Accomplished salesmen were in attendance at the rooms, and canvassers traversed the principal cities and towns. The distribution of the work has in consequence been excessive, and there are very few parts of the world in which photographs produced by the Centennial Photographic Company cannot be found.

I believe that my remarks in relation to this subject are concluded. I hope that I have not been unnecessarily prosy, and that I have furnished a trifling amount of entertainment, if nothing of instruction.

# HOW IS BUSINESS?

(Continued from page 266.)

Your note soliciting answers to a number of questions pertaining to the photographic business reached me about the dog days, when I was more inclined to spend my leisure time down the Niagara River, equipped with fish-pole and lunch basket, than to undergo the trying task of saying something new about the business. With a cooler temperature I have mastered sufficient courage to at least touch upon some of the points you mentioned.

At the present time business generally shows some signs of improvement, but I doubt that the photographic business will be much benefited until other industries have prospered for some little time in advance, therefore hardly expect that we shall have much more work to do this fall and winter than last year.

The cabinet size is, perhaps, the most popular with my patrons, finishing a good share in the vignetted style. I have \$10 per dozen for cabinets, \$5 and \$6 for cards.

The taste of the public has unquestionably improved much upon photographic work, consequently good work is better appreciated, and commands good pay without complaint. As to my experience in charging for work, I will say that twenty years of established business upon the high price standard, leads me to believe that good work and a corresponding price for the same is the best principle in the long run, at least I have no regrets to make.

As to prices coming down. Should the dulness in business continue, I believe that it will be policy to lower prices where they have not been reduced lately, as the public seems to derive some satisfaction in the reduction of everything just now; but I do not believe that low prices create demand; in fact this has been proved a great mistake in the mercantile line of late. There are more camera artists than are needed; that's

the trouble—an "overproduction" for these days. A "foreign demand" might help us some.

A. Simson,

Buffalo, N. Y.

# "A. M. C.'S" TROUBLE.

THERE still seems to be a little interest in this subject, and we add below several letters which have been received; they may give useful hints to such readers as may be in a similar fix. We have no further letter from "A. M. C." himself than the one below. His case is rather a baffling one. The following is the correspondence alluded to:

By the way, I am inclined to think that the trouble of "A. M. C.," described in the September *Photographer*, must be in the albumenizing, although his spots are transparent and mine opaque. Still the difference may be caused by a different kind of impurity, or by something wrong in his albumen.

J. S. Hoven, Rome, N. Y.

Seeing the correspondence between "A. M. C." and yourself regarding trouble in the dark-room, I thought that perhaps a review of a trouble which I was in some years back might throw some light on the subject. I found myself unable to produce a satisfactory negative, being troubled with weakness of the film and spots similar to those shown in your diagrams; I tried all the remedies I knew of, and made an entire new set of chemicals, but the trouble remained, and I was obliged to close my gallery, and so it remained for two weeks, when a brother photographer came along, and after looking the matter over, suggested that it might be some impurity in the silver. As my new baths, several of which I had made, had been made from the same sample of nitrate, which was P. & W.'s, in which I had great confidence, I concluded to try fusing the silver in the bath, and accordingly transferred it to the evaporating dish, and continued the heat not only till the water was all evaporated, but till the fused nitrate was almost red-hot, and had ceased to produce little volcanoes which. would burst with a cloud of black smoke; I redissolved this silver in clean water, and with the same collodion and developer that I had been using before, produced a perfect negative the first trial.

If some of the learned professors in photography could explain satisfactorily the cause of oyster shell markings on negatives, I have no doubt they would confer a great favor on many a member of the fraternity. They have been a great annoyance to me in landscape work, and a remedy would be appreciated; but we don't want to hear any more about silver splashing, and keeping out of the bath too long a time. Though imperfect manipulation may aggravate the evil, the cause lies deeper.

The article in the Photographic Times, copied from the British Journal, by Edward Dunmore, points to a solution of the mystery. Might not the animal magnetism of the operator be the cause, as the markings are usually most numerous on the end of the plate held by the operator during development.

H. F. HIESTER,
Fort Defiance.

I received your note of inquiry in reference to the trouble with my bath, etc. I intended answering right away, but finding my bath, or something else, going through some kind of an evolution, I thought I had better wait to see how matters turned out and then write you more definitely; and as yet I am not able to say whether I am out of the fog or not. About three weeks ago my trouble seemed to pass away without my making a change in any way, and everything continued to work as well as one would wish for two weeks, when, like a flash, the trouble returned; and if anything, worse than ever before. This was on last Saturday; on Monday everything worked all right again, and has done so all the week, and yet I have made no change in any sense with any of my chemicals. I will watch things closely, and give you a fuller report at some future time.

Please accept my hearty thanks for the interest you have taken in my trouble, or rather to get me out of it.

A. M. C.

THERE are seven different sizes of the new euryscope lens, Voigtlander's make, sold by Messrs. B. French & Co. of Boston, varying in price from \$30 to \$225. We have tried one of the largest size, and it works magnificently.

# PYROXYLIN.\*

In the using of emulsions, the selection of the pyroxylin is of the greatest importance, since it is in the collodion, of which it is the principal element, that are produced the different reactions which serve in the formation of sensitive salts. It is well, however, not to exaggerate this importance; as we believe that time can improve a collodion which, at first, was not suitable for the emulsion process.

To ascertain the properties which should be sought for, it is necessary, to begin with, to fully understand the part played by collodion in photographic operations.

We believe that collodion, that is to say the mixture of pyroxylin, alcohol, and ether, is a medium destined to contain the different salts introduced therein, without being modified or changed by their contact. Moreover, it should not only receive these salts, but it is indispensable that, by a suitable washing, those that remain soluble may be entirely eliminated. In a word, collodion should not intervene in any reaction. If this theory is not admitted, the emulsion process cannot be practiced with certainty.

A short time ago a trial was made to introduce in the preparation of cotton, and to modify its character, another organic substance, such as gelatin. It was desired by this means to cause its intervention in the ulterior reactions; but we would add that the learned author of this formula has almost condemned it, by saying that he preferred adding the modified gelatin to the emulsion itself. In this case the gelatin acts as a reducer in the development of the image.

In examining the part played by pyroxylin, we are brought to answer this question: Does pyroxylin in the presence of a mixture of ether and alcohol form a solution, or is it but an extension, a more or less dilatation of the cellulose? Whilst not giving a positive affirmation, we admit this second hypothesis. The nature of cotton, its varied characteristics and the different transforma-

<sup>\*</sup> Translated for the *Philadelphia Photogra*pher from A. Chardon's treatise, "La Photographie par emulsion seche au bromure d'argent pur. Paris, 1877."

tions that time produces in collodion, are sufficient proofs in favor of our opinion.

Collodions freshly prepared with a resisting pyroxylin are thick, and give striated films; nevertheless, in time, they acquire great fluidity. How can we explain this change unless it be by a greater dilatation of the cellular tissue? If there were solution, this transformation would not take place; as from the start it would be what it is destined to remain. If this same collodion is kept for a still further length of time, fluidity will increase, and may be accompanied by a partial decomposition of the cellulose.

We have had collodions which, after having presented great homogeneousness, separated themselves into two distinct layers: one, superficial, composed of ether and alcohol; the other below, containing the pyroxylin, and having a mucilaginous character; in this case again, solution could not possibly exist.

It is well understood that we have reference to a collodion free from salts. take an iodized or bromized collodion, according to the nature of the salts used, there will be retardation or acceleration in the effect produced; thus iodides or bromides with a metallic base, as for example the salts of cadmium, retard the extension of the fibres of the cotton by producing a momentary contraction. The alkaline iodides or bromides accelerate the dilatation.

We have deemed it useful to give these observations for the better understanding of the conditions to be sought for in the choice of cotton to be used for emulsions. Our experiments have demonstrated that the more permeable the cotton is, the more its fibres will be distended, and also more perfect will be the emulsion. The process, which consists in immersing the raw cotton in a mixture of nitrate of potash and sulphuric acid at a high temperature (167° to 176° Fahr.), is the one that we prefer. It has been given in a very complete manner in the excellent work of Mr. Hardwich; it furnishes a powdery and porous pyroxylin, and gives a fluid collodion exempt from striæ. But, as the excess of porosity, which is so useful, may cause a want of cover of the bromide of silver for the powdery pyroxylin, we add a more resisting cotton, and which has been

treated at a lower temperature. We can appreciate the qualities of this mixture by verifying that if the powdery cotton facilitates by its permeability the formation of the bromide of silver, it does not retain it sufficiently in its pores, and the bromide would be precipitated, if a certain quantity of more resisting cotton did not intervene to prevent this precipitation.

Excellent results in making emulsions may be obtained by using cotton precipitated by hot water, as has been pointed out by Mr. Adolphe Martin. This cotton does not leave any residues in the etherialized mixture, the insoluble portions having been separated from it before its precipitation; on the other hand, the water taking up the soluble portions of the pyroxylin, there are no longer any changes in the weight; this is specially useful, from the fact that in precipitating the emulsionized collodion, the soluble portions are carried away in the washings, leaving free the molecules of bromide of silver which would give afterwards granulated coatings but slightly sensitive, owing to the weakening of the silver salt.

The proportion of pyroxylin which is to produce the collodion is variable in the ratio of its solubility, of the density of its solution, of the nature of the film that is to be obtained, of its more or less resistance, etc.

If the proportion of pyroxylin is too weak, the bromide of silver formed by the addition of the nitrate of silver would be partly precipitated, giving granulated films having no cohesion. If, on the contrary, this proportion is too great, the films formed would be too transparent, would be deficient in sensitiveness, and would produce clichés without vigor, owing to the impossibility of strengthening the image obtained; the washing of the emulsion would be defective, owing to its too rapid contraction in the water in which the precipitation is made.

We see, therefore, the importance of the theory that there should be a well calculated ratio between the pyroxylin and the bromides used.

As we have already intimated, the merits to be sought for in the choice of the pyroxylin, are very rarely found in one and the same article. On the other hand, the causes which act in the transformation of the cotton into pyroxylin, are so complex that we only have been able to examine the most essential conditions, which are porosity, permeability, resistance, and what is called solubility, which for us is nothing more than an infinite dilatation of the cellulose.

There are two methods for transforming cotton into pyroxylin. The first, which consists in steeping the cotton in a mixture of sulphuric acid and nitrate of potash, gives a porous and permeable pyroxylin, provided, however, that the temperature of the mixture has been sufficiently high during the time of immersion. This process is now but little used, and it is unfortunate that a faulty economy should have caused it to be abandoned. We must come back to it, for it is not possible otherwise to find the porosity and the permeability indispensable for emulsions.

The second process, the one in most common use, consists in immersing the cotton in a mixture of nitric and sulphuric acid, with addition, in certain cases, of a small quantity of water.

All raw cottons do not act the same in the transformation, nevertheless, whatever they may be, this process gives pyroxylins which produce resisting films. It must not be forgotton that this quality has its advantages for making emulsions. After numerous experiments we make a mixture of the pyroxylins obtained by these two processes.

To the pyroxylin resulting from the immersion in the nitrie and sulphuric acids, we have given the name of resisting cotton, and to that produced by the mixture of nitrate of potash and sulphuric acid, that of powdery cotton.

A NEW photographic magazine, to be called the German Photographic News, is to be published at Weimar, with the following gentlemen as its officers: K. Schweir, President; W. Zink, Vice-President; C. Bellach, Secretary; K. Festze, Cashier; F. Haugk and Th. Horikel, Assessors. Surely there is nothing like opening one's mouth wide, and with such an array of officership we ought to have an unusually good magazine. We understand it is to be a weekly after the first of the year.



Would some one be good enough to answer through Sphynx, how an enlarged ferrotype is made from a card or other sized picture which has a dark background? The enlarged copy to be changed to a white background having the appearance of an Albatype plate, yet without being one, the white being only on such portions of the plate as is desirable and very smooth?—B. & E.

To make Waymouth's vignette papers print quickly, give them a coat on the insides of the white parts of a little easter oil. This makes them transparent. Try it.—B. & E.

This is not a good dodge, and the example which B. & E. send is an evidence of the fact, for the picture is printed with a hard pear-shaped line around the whole of the bust, which should not be. The great advantage of the Waymouth vignette papers is in the delicacy and softness of the vignetting effect, which is procured by their use, and it is a mistake to make them transparent in the manner stated. Printing quickly is not an advantage; for all sorts of prints we prefer slowness rather than quickness when we wish to get the best and softest effects together with richness and half-tone.—

Sphynx.

# A PHOTOGRAPHIC EXPLOIT.

We think it is our pleasure to place one of the finest feathers in the cap of wet-plate photography that we have lately heard of. A few days ago, to oblige a friend, who is a prominent lawyer in this city, we undertook to make him in great haste three 13 x 16 views of portions of a railway track,

the scene of an aecident, by which a man was killed last winter. The object of the photograph was to show, first, the scene where the man was killed; second, if he was killed there he had no business to be; and third, if he had been walking on the spot shown in the photographs instead of on the pavement, where all proper and sober people walk, he would not have been killed.

The time to do this, however, was exceedingly short; there was not even enough to make the usual preparations for an outdoor job, such as arranging the outdoor wagon, bringing the horse from the stable, and the other usual preparations; therefore the plates were coated in the dark-room of our studio, placed in the holders, and carried with the camera in a buggy, which was pressed into the service, to the scene of operations nearly three miles away. The exposures were made one after the other, and the plates were carried back and developed, two hours and a half intervening between the time of the flowing of the collodion and the pouring on of the developer. We hardly dared expect perfect plates under such circumstances, but we were agreeably disappointed in the result. Two out of three of the plates were as thoroughly clean and free from any mark whatever as those which are exposed in the studio, and the other showed faint signs of drying on the upper left-hand corner and side. No substratum of syrup or glycerin or anything of the kind was used, but simply an old, ripe collodion, treated after the manner adopted by the Centennial Photographic Company for making pictures of interiors, and described this month in an article on "Our Picture."

The result was, we were able to meet our engagement with our friend, and to enable him to have his photographs in court in proper time. We are not able to state whether or not photography won the case, as we believe it has not at this writing been decided, but we do know that this same friend has a photograph which saved the same railway company \$10,000 in the following manner:

A lady travelling lost her trunk by means of a railway accident; she sued the railroad company for \$10,000 loss. Not being fully impressed with her appearance, as being

like unto one who could own a \$10,000 trunk, the shrewd counsellor quietly had the residence of the lady photographed, and to her consternation it was shown to her for identification before the jury. When the case was argued, the principal witness was the photograph, and as the counsel said, so the jury agreed, that no one could believe that a person residing in such a house as that could possess a \$10,000 trunk, and the case went against the forlorn lady.

Ever since, that railroad (which is one of our principal trunk lines) has believed in photography, and is very ready to give a photographer a special caboose for use on its line free of charge. We do not mention the name of the road, else all the photographers who have dull business at present should rush upon the railway officials and claim the privilege all at once, and thus reduce their stock of cabooses to a minimum.

# PHOTOGRAPHIC NEWS.

It is not permitted to transport collodion in Germany over the railways.

A STRONG MUCILAGE.—The Journal of Pharmacy says: "To a strong solution of gum arabic measuring 8½ fluid ounces, add a solution of 30 grains of sulphate of aluminium dissolved in two-thirds of an ounce of water. The result will be a very strong mucilage capable of fastening wood together, or mending porcelain or glass."

The San Francisco Commercial of September 22d has a very interesting sketch of the photographic supply house of Mr. Oscar Foss, 512 and 518 Washington Street, San Francisco. Mr. Foss, we learn, has been in business there for ten years. Such a long experience should give him a good reputation among the trade, as he no doubt has.

TO PREVENT THE CONDENSATION OF MOISTURE ON MIRRORS, GLASS PLATES, ETC.—Pass lightly over the surface of the glass a cloth steeped in glycerin. The watery vapor contained in the air is completely dissolved in the glycerin, and the mist no longer forms. This may be useful to photographers working either in the glass-room or in the country, when there is

dew, fog, or a hot, damp atmosphere.—Bulletin Belge.

It takes 556,110 miles of light to make a picture of a baby in three seconds, for the reason that it is represented that light travels 185,370 miles in a second. If persons known to photographers as movers would realize this fact, they would make more strenuous efforts to keep still. Only think, too, of a person with red hair and ditto complexion, requiring on a moderately clear day 11,122,200 miles of light to make his picture. No wonder opticians are striving to reduce the time of exposure; there is wonderful room for invention in this way.

Many persons are now using the alkaline development, and it is well, we think, to point out that if the ammoniacal vapors are allowed to mingle with the air of the laboratory they produce a fog on plates treated by the wet process and developed with the iron salt. To avoid this serious trouble, it is necessary to ventilate the laboratory after having used the alkaline development, otherwise there is a risk of losing the plates which are successively treated there. It is not only necessary to renew the air as much as possible, but to sprinkle a little acetic acid on the floor to absorb the ammoniacal vapors.

"THE PRINTS WHICH HAVE FADED."-The Photographic News of September 21st has a leader under this head, in which it says: "Any agent which would restore the former condition of a faded picture would restore the color, and the picture would be resplendent with the bloom of its beauty; and that one of the great wants in connection with the art, is a method of restoring the image by blackening again the metallic salts of which it consists. The search of a method is one well worthy the effort of an experimentalist, and will no doubt well repay the successful discoverer of an efficient method." This is all very true, but why omit a second opportunity for research and invention in the line of carbon prints which have faded and are fading every day. Perhaps Mr. Lambert will exercise his ingenuity in this direction.

The Notizen gives the remedy for blisters

in albumenized paper. "On removing the prints from the toning-bath, wash them several times in pure water, then place them, one by one, if possible, in a bath containing three or five grammes of pure muriatic acid to a litre of water: here let them float, moving them about for a few minutes, then wash them further for two or three minutes in pure water to remove the acid. On warm days the operation should last longer than on cold. The prints are then placed in the fixing-bath, and in those rare cases when the finished prints have a slightly yellowish tone after the removal of the acid, should be first put for a couple of seconds into a solution of five grammes of ammonia to a litre of water; then washed once, and placed in a hyposulphite of soda bath. In this way any alteration of tone is rendered impossible."

Some local as well as photographic newspapers, are having a "Yankee trick" played upon them with reference to an instantaneous photograph of the celebrated trottinghorse "Occident," said to have been taken when he was trotting at a speed of thirtysix feet per second, or a mile in two minutes and twenty-seven seconds. The negative is said to have been taken by Muybridge at San Francisco, and exposed to the light less than  $\frac{1}{1000}$ th part of a second. The real facts of the case are, if our informant is correct, that the lenses by which Mr. Muybridge hopes to take such a picture, are at present being made in the "Ross Optical Works" in London. Meanwhile poor "Occident" may accidentally die. The last clause of the sensational article shows where the "nigger in the fence" lies, in fact where the writer lies also. He says: "The picture has been retouched, as is customary at this time with all first-class photographic work, for the purpose of giving a better effect to the details. In every other respect the photograph is exactly as it was made in the camera." No doubt, in every other respect.

"The Fisherman's Daughter" will serve as Our Picture next month. It is a very pretty genré picture from negatives by Mr. J. Loeffler, Tompkinsville, N. Y.

# OUR 1878 PREMIUM LIST.

WE have already addressed a circular to many of our patrons announcing our plans for the new year, and briefly rehearsing the course which we have pursued heretofore with reference to looking after the interests of our fraternity, have asked them whether or not such a course should be continued, and the Philadelphia Photographer receive such generous support as has heretofore been accorded it. We have been gratified to receive in reply many very kindly letters and assurances of good will and encouragement, together with a substantial evidence that the general desire is that we should go on; and as many of our subscribers kindly make it a part of their business each year to solicit for us subscriptions from those who are not upon our list, we make known thus early in the season our offer of premiums.

It will be remembered that it has always been our habit to give to those who would kindly secure us a subscriber an equivalent for their time employed, in the shape of one dollar's worth of our publications. There are a number who possess every publication we have issued, and who seem to feel more delight and interest in them than they would if they had purchased them. It will be remembered that these premiums are only offered to our subscribers, an advantage which we reserve for those who have the other advantages of being our subscribers. Let it be fairly understood then, that there may be no misunderstanding, that we do not give a premium to a person who has never taken our journal, on his own first subscription. After he becomes a subscriber, if he send us another new subscriber in addition to his own, then he is entitled to a choice of premiums. Our offer, therefore, is as follows:

Any subscriber sending us another for a year who did not subscribe in 1877, will receive one dollar's worth of our publications, or receive credit to that amount on the purchase of any article which we supply. For two new subscribers for a year double the above. For three new subscribers for a year triple the above. For four new subscribers for a year four times the above. For five new subscribers for a year his own jour-

nal free, or an extra copy to any address, or five dollars' worth of books or merchandise; or, as an extra offer, any one sending us a club of four subscribers for 1878 will be sent the present and the next number free, and all the other back numbers of this volume.

Our list of publications will be found on the cover of this number, and the other articles which we are willing to send are detailed in our advertisement. Every subscriber can win another if he will write him a letter or use a little personal effort. Some of our subscribers have secured others while riding in the cars, others while being visited by their neighbors. It is easy and only requires a little effort, and the more subscribers we receive the better are we able to afford improvements in our magazine.

We mean to improve each year anyway, but we can afford to improve more if those who express themselves as pleased with us will use a little personal effort to spread our influence and usefulness. Please remit by post-office order or draft to the order of Edward L. Wilson, and avoid sending money if you can. Post-office orders are the safest and surest for all. An order sheet will accompany our next number, and we hope you will be prepared to fill it.

In our next number we shall perhaps have an announcement to make that will surprise our readers all around.

# OUR PICTURES.

WE have adopted rather an unusual plan this month of embellishing our magazine with a variety of subjects. No doubt all of our readers have been interested during the past year with the articles by Mr. Gihon on the subject of photography at the International Exhibition of 1876.

We have no doubt that the photographic undertaking alluded to was the largest that ever was attempted in the time, and while Mr. Gihon has in the most interesting manner detailed the various methods employed by the Centennial Photographic Company for producing their work, he has by no means exhausted the subject, although he draws his papers to a close this month in order to take up another series. We therefore present our readers with one more Cen-

tennial illustration, in order to give us an opportunity to make some general comments of a practical nature upon the various kinds of work which the Centennial Photographic Company were asked to make.

For the same reason we vary the style of subjects, so that but few of our subscribers will receive exactly the same picture. One will receive a simple landscape photograph, another an architectural exterior, another an interior, and others either a sample of statuary or of still life, thus being enabled to compare notes with the fellow members of their societies, or with their co-workers in some of the cities or towns. With this explanation of our reason for thus varying the subject, we proceed with our remarks, first, upon

# ARCHITECTURAL EXTERIORS.

It has often been said that subjects of this nature, on account of their rigidity and immovability, are the most easy to handle by means of photography; they generally present such an area of surface, and enable one to select a time when the reflecting surfaces are the most favorable, that any one who can photograph at all, it is said, should be able to make good pictures of such subjects. Moreover, on account of the reasons stated, one is enabled to make larger sizes and use smaller diaphragms, without any regard to the time of exposure than is possible, with any other style of subjects. Still, the matter is not so easy as some suppose; especially was this so with such large buildings as were presented to the cameras of the operators of the Centennial Photographic Company. These vast structures were exceedingly difficult to handle; it was an object to make pictures as well as photographs, and the mechanical difficulties which stood in the way sometimes caused considerable trouble; size alone was not merely sufficient, neither was architectural exactness enough to satisfy. Such subjects when undertaken too large often present disagreeable lines and angles, and while at first we admire the dimensions attained, we are disappointed by the mechanical appearance of the photograph. Larger sizes than 20 x 24 plates were not, therefore, attempted by the Centennial Photographic Company, and the smaller the size the more satisfactory as a usual thing was the picture.

In the matter of lenses for such subjects it was necessary that selections should be made of such as should be absolutely free from distortion, therefore no single lenses were used; almost entire use was made of Morrison's landscape lenses, to the excellent qualities of which we have already added our testimony. The smallest diaphragm possible was always employed, and thus the best representation of an object was secured. Of course every attention was given to the light upon the subject, and the time of day chosen when it was best. The choice in this direction was a mere matter of thought, inasmuch as one being once acquainted with the direction of the light at certain times of the day, can very easily decide when to make his view. Of course it is very necessary when attempting such subjects the camera should be level, the light well chosen, and the smallest diaphragm the nature of the light permits used. Figures in such subjects are always to be avoided, if possible; they are a nuisance to the architectural photographer.

As to the manipulations, silver bath of forty-five grains was usually used with the following

## Collodion.

Iodide of Ammonium,		3 grains.
Iodide of Potassium, .		3 "
Bromide of Cadmium,		3 "
Cotton,		5
Ether and Alcohol, .	. •	equal parts

## Developer.

Glacial A	cetic	Acid,				1 oun	ce.
Water,						16 oun	ces.
Photosul	phite	of Ire	n, 15	to	30	grains	to an
oune	e of s	olution	1.				

Of course they are varied according to circumstances, and no exact rule can be given. In warm weather a more diluted developer was used than during the colder days, and the time of exposures must also rule the developer.

## INTERIORS.

This embraced the most difficult subjects which came in as a part of the work of the Centennial Photographic Company. We do not, of course, expect to go into details respecting the various kinds of subjects

which were photographed, as our readers will probably never be asked to make such subjects, and, therefore, our remarks will more directly allude to interiors of buildings proper.

Of course a great essential to success in such subjects is the quality of the illumination which they present. Here again came the difficulty of distortion in the foregrounds or nearer parts of the picture, unless great care was taken in adjustment. Here came in the excellent qualities of the double swingback camera boxes of the American Optical Company.

Of course we all know that these subjects need not necessarily be lighted from the top. The very best lighted building, which Mr. Gihon has already mentioned, was Agricultural Hall. Those who have seen it, will remember that its apartments were made of a series of Howe trusses, and that the interior was calsomined with a grayish color, while the light was received from windows very appropriately placed in the sides of the roof. Here the most beautiful effects of light and shade were secured. Next to this in quality was perhaps Horticultural Hall, which, although in the shape of a parallelogram, was beautifully lighted from above and at the sides.

Machinery Hall was, although beautiful, full of horrid angles and straight lines. Next to be preferred in the matter of lighting, but the worst and meanest building with one exception was the Main Building, the largest of all the structures, on account of its peculiar construction, not only giving exceedingly bad lines, but so strangely and miserably lighted, to say nothing of the round windows filled with rudely-colored transparencies, which line the upper series of lights. The exception we have named was the Art Hall proper and its annex.

Nothing could be conceived more illy adapted to the purposes of photography than these buildings. However, the difficulties when known are more easily met. One great advantage that they all had was sufficient space and a considerable choice of position. Here also came in use the Morrison lenses, and they proved themselves to be all that could be desired.

In the matter of exposure there could be

no rule; the general views were made in from twenty to thirty minutes, but for some subjects frequently from sixty to one hundred minutes' exposure was required. These long exposures, however, were required because of the crowded nature of the buildings, and the almost entire absence of appropriate light in some cases.

We were informed at the beginning of our work that it would be impossible to take such subjects without employing the dry process, as the exposures would be longer than it would be possible to keep any wet plate, especially in hot weather. We are free to say, however, that we did not find this the case; difficulties we had, of course, but they were met, and it was rare a subject was absolutely given up because of the impossibility to take it, and the wet process was used throughout.

It may seem incredible, but the examples were not few where the plates were kept over two hours between the time of coating with collodion and the development.

The method employed in such cases was as follows: Collodion the same as named before for exterior work with the following modifications. A good ripe collodion was used, and new strictly avoided; to this, drop by drop, distilled water was added, equivalent to about two drops to each ounce of collodion; after the addition of each two or three drops, the collodion was well shaken, lest the precipitation of the cotton should occur: after this the collodion was carefully filtered. We know that this formula is not new, but we believe there is much in the manner of adding the water by small degrees, and carefully shaking after each addition. We recommend those who make this class of work to try it.

### STATUARY.

Mr. Gihon has so thoroughly gone over the matter of making pictures of statuary, that we need say but little on this subject. We are told also that such objects are amongst those least difficult to the photographer, but that is only the case when the object is under the control of the operator, and he can place it in whatever light he has at his convenience. With our work this was not so; it was not permitted that the objects should be moved, and therefore it was sometimes difficult to light them properly. The most neat and careful manipulation is required in such cases, as the background must be absolutely clear from spots and streaks that they may print entirely black.

The duration of the exposure is also of considerable importance, and great care should be given to the selection of an appropriate background. The kind used by the company was green baize; in some cases, as may be seen, no background was used but that which was offered by the pictures hanging back of the piece of statuary. The same sort of lenses were used as for our other work, the variation being made in the focus according to circumstances. One thing very important was to avoid too violent a flow of light upon the subject, lest the modelling of the form be entirely destroyed instead of it. being attained fully. Were the contrary course pursued, the appearance of the photographs would be harsh and coarse and hard.

We were often asked why we did not reproduce the statuary in larger sizes? It should be remembered that originals of this kind are more or less excellent according to the perfection of their forms, and any distortion would cause dissatisfaction, therefore it was rare that a picture of statuary larger than 8 x 10 size was made. A great choice in the outlines of the whole is always possible with a piece of statuary, and here comes in the photographer's knowledge of art principles-first being familiar with the name of the subject, and thus obtaining the ideas of the sculptor, he must select such a view as will most fully represent the said ideas, lest the representation be that of a mere piece of masonry. As to the formula used for making such work as this, but little change was made in what has already been stated as used for exteriors, except that new collodion was usually used instead of collodion that was more ripe, softness and delicacy of light and shade being better secured in this way than when a more intense collodion was used. This, too, was modified a little according to the position of the piece in hand.

# STILL-LIFE SUBJECTS.

Under this head came many of the most beautiful things of the Exhibition, such as bronzes, drapings, carvings, bric-a-brac, glassware, jewelry, etc., objects which are splendidly adapted to camera work, besides enabling one to become familiar with the various qualities possessed by the classes named, and the treatment necessary to secure the proper result. Here were bright surfaces, and colored surfaces, and texture, and fabrics, and smoothness, and light and dark objects, with all sorts of arranged lines and gradations of light and shade, all giving great room for skill in treating them.

Here the lenses used and the formula needed should also to be changed according to the subject, and any of the modifications named above would come good.

One great secret in treating a variety of objects is to find the best way of lighting them before proceeding with the work. It is not a good rule to simply go along without any general rule or principle; on the contrary, it is best first to make up your mind when you are about to photograph an object, that you will secure the best result that photography can secure; that you will, therefore, study first the light and the nature of the subject as to color, and size, and material, and then choose the best light possible to use, and modify your formula to suit the other circumstances according to the accepted rules in photography, about which there is nothing new.

As we have stated before, the paper we used mainly was the Dresden brand, both double and single albumenized. Our prints were silvered upon a forty-five grain bath, dried in a large box, the bottom of which was wrought iron, and the heat obtained by the gas applied under the iron, fuming in the usual way, and then printing.

As we have said, Mr. Gihon has treated fully upon the preparation of the prints, and we only wish to add a hint as to the method of drying. All sorts of plans have been tried, but we found the most effectual by laying the prints between ordinary sheeting, one layer upon another; in this way the prints dried thoroughly, and they are just limp enough to make easy cutting with the Bergner cutter. If care be taken to wash these sheets frequently and thoroughly, no fear need be had of any danger to the prints. We much prefer this plan to the use of blot-

ting-pads, which are sooner or later sure to play you a trick by spoiling a lot of prints. And if we have not as clearly mentioned all the details as you wish, we shall be glad to be questioned on the subject, and will cheerfully answer.

# "ROUGHING IT:"

OR, A WEEK'S RAMBLE WITH CAMERA AND TRIPOD.

Having recently returned from a photographic tour through Maryland, Virginia, and Pennsylvania, and being considerably impressed with the importance of some of the things connected therewith, I will take advantage of a leisure hour and jot them down for the good of the fraternity at large; and although too late to be of service this season, it will give those wishing to avail themselves of any suggestions ample time to prepare for early spring. It is frequently the case, too, that a pleasant day in winter can be utilized with profit.

The trip in question required six days, during which time over one hundred and forty miles were travelled on "schedule" time, according to plans previously arranged. Nearly one hundred stereoscopic negatives were made, about fifty of which are of general interest, the remainder being of residences, family groups, and views of mere local interest which we had been commissioned to execute in and around some of the thirty towns and villages at which we touched. It is not necessary that, in the course of this article, I attempt any extended description of the lofty and majestic mountain peaks, or the lonely, narrow, winding roads, sometimes passing beneath a frowning cliff, and again crowded to the very edge of frightful precipices, beneath whose shade, and at the very base, hurried the rippling mountain rill in its crystal splendor, forming here and there, in its serpentine course through the gloomy glen, cascades and waterfalls in miniature; nor of the graceful river, whose broad surface reflected the rays of the scorching noonday sun, as it is reflected by nature's mirror only, and on whose calm bosom smoothly float in the interests of commerce the various motors of the day.

Close by the side of the more pretentious stream, whose course was carved by the Creator of all, nestles the canal, a triumph of human patience and skill. Leisurely treading the beaten tow-path, or passing through a lock or over an aqueduct, patiently tugging the ladened craft in its sluggish errand onward, can be seen the enduring mule urged by his profane driver. Leaving the canal-boat with its drowsy crew, a short drive brings us to the verdant pastures, where, grazing in the meadows or browsing on the hillside, we see herds of sleek and timid kine, while others stand beneath the shade of giant oaks, lazily chewing their cud and brushing the annoying flies.

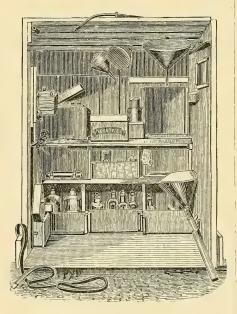
Reluctantly leaving this quiet, peaceful scene, whose stillness is only broken by the tingling bell, we soon draw up at a rural railway station. In a moment can be heard the distant whistle of the locomotive, and soon we see the smoke ascending. As the train comes in sight we can hear the ringing of the bell, the puffing and the snorting, and as the ponderous train stops, all is excitement. A passenger or two enters the car, while others step off, mail-bags are hurriedly exchanged, then another deafening whistle, and the train bounds off with almost lightning speed, and again all is calm and quiet.

As the descending sun nears the western horizon, we enter the mouth of a limestone cave. We are intensely interested with the peculiar formation of the ante-chamber; but as we explore the vast caverns and grottoes, we are delighted with the grandeur, beauty, and variety of the subterranean scenery, and the grotesque and fanciful forms of the mineral concretions. As we carefully tread along among the columns and stalagmites on every hand, the light from our torches reveals the beauty of the overhanging stalactites, and at every step the scene changes beneath the glare of our torches; pillared walls, hung with sweeping folds of tapestry, fluted and groined niches filled with shadowy sculpture flash in view. Dazzled with the radiance and grandeur of the scene, we finally reach the dismal pool, of which startling and blood-curdling legends are handed down by tradition.

Although the boat lay within easy grasp,

the lateness of the hour, had we desired to do so, would have prevented our inquiring further into the mysteries of the unexplored beyond. Having gone as far as man has been known to go and return, we retraced our steps over the slippery way, where for centuries have lain the bones of the red man, and where he doubtless smoked the calumet of peace, and participated in the councils and festivities of his tribe.

As we emerge from the cave, the moon-beams seem as warm as the mid-day sun. For a moment we were almost stifled; the gentle air of the summer evening seems freighted with heat. We wend our way to the village inn, well pleased with our subterranean exploits, and satisfied that scenes worthy of our best efforts await us on the morrow.

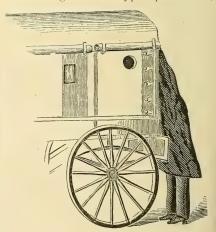


- 1, 2. Funnels.
- 3, 4, 5. Windows.
  - Row of four boxes, 3-inch square, holding lamp, neg. gun-cotton, cotton flannel, matches, a few nails, tacks, etc.
  - 7, 8. Plate boxes.
    - 9. Row of two boxes, bottle for pouring water, filtering cotton.
    - 10. Negative rack.
    - 11. Negative bath-tub.
    - 12. Four bottles of collodion.

- 13. Hypo. bath-tub.
- 14. Neg. bath, bottle, and stock developer.
- 15. (Back row), eight oz. collodion, sulphate iron,\* hypo. soda.\*
- Intensifier, collodion, minus cotton, for thinning, alcohol, acetic acid.
- 17. Varnish, developing cup, bottle for hyposolution.
- 18. Waste-pipe.
- 19. Pocket for plate-holder. A few screweyes for towels, twine, etc.

N.B. It will be noticed that no water-tank is used inside, which would occupy some room. I have always preferred using a pouring-bottle.

The portable laboratory used during these rambles is of my own contrivance, and although of simple construction, is decidedly the best for all purposes I ever used. It is easily lifted on or off any ordinary spring wagon, and is secured to the wagon-bed by two bolts passing through the bottom. It contains two stationary grooved boxes, holding fifty stereoscopic plates each, and arranged to carry sufficient prepared chemicals to work them, and sufficient raw material to fall back upon in case of accident to prepared chemicals. Everything required in a portable dark-room has a place specially prepared and labelled for it. Packing and unpacking are entirely dispensed with, as it is only necessary to remove water-tight covers of negative and hyposulphite baths,



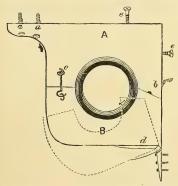
and take out several sliding fronts of compartments, behind which are arranged the

# In bulk.

bottles containing the various chemicals. This is done in less time than I write it. The arrangement could doubtless be easily understood from cuts, yet a description giving dimensions may not be amiss.

It is made of three-fourths inch pine boards, tongued and grooved, 39 inches high, 30 inches wide, and 29 inches deep from back to front. That the temperature of the chamber may be as comfortable as possible, the exterior is painted white, which reflects heat rays, while a dark color would absorb them. Top of 8x10 window in front (which is glazed with deep orange glass) is nine inches from top of box. On each side, near the top, and just in front of curtain knobs is a four and a half inch circular hole, with sliding orange glass, for light and ventilation.

The bottles used were selected and labelled before the inside was laid off, and then, as the work progressed, they were placed in a row where wanted, and a space of five-eighths of an inch left between them. They are kept in position by one-fourth inch uprights sprigged to fronts, which are made to slide in cleats fastened to the sides. Rubber and tin funnels for hypo., varnish, etc.,



are hung on an opened screw-eye. Contrivance for glass funnel will be readily understood from the cut. Part A is fastened to sides of dark-room by screws a a and b passing through it, and e e from the outside. B is fastened with strap hinge at b, which is thrown open (see dotted lines) to admit of funnel, and secured to hook at c. To economize space it is placed about two and a half inches from top, in right-hand front corner. Sides and top inside are painted a dull yel-

low; shelves and other fixtures black, with yellow letters. Curtain over the back is made of two thicknesses of yellow and one of black calico, three yards wide and two yards long. It is buttoned on fifteen one-inch stout brass-head nails, and a strap passing through each side below is buckled over the top. The operator is just the right height when standing on the ground, and when the curtain is tucked around him it is perfectly light-tight. By having every bottle carefully labelled, and labelling every compartment within the dark-room, there is but little danger of leaving behind articles that might otherwise be forgotten.

Stowed away under the wagon scat we carried a small walnut box holding extra fronts and lenses for special cases, a box of scales and weights, four-ounce graduate, lunch box, a valise containing complete change of clothing for companion and myself, and a neat box with handle containing camera box and view lenses. Tripod was swung over dark closet, while in front sat a five-gallon square can (boxed with handles) filled with water, which we always carried with us. A bucket strapped underneath the wagon, in which we carried a small bag of horse-feed, completed the outfit.

As one is not always within easy reach of a hotel at noon, and it is not always convenient to stop without great loss of time, we found the lunch box an actual necessity.

GETTYSBURG, PA., Oct. 9th, 1877.

(To be continued.)

[Our friend neglected to letter his first drawing, but it will be understood by the reader.—Ed.]

# PHOTOGRAPHIC DUTIES.

No. VI.

BY E. K. HOUGH.

(Continued.)

WE have spoken heretofore of our duties to art in general, to our art in particular, and to the public whom we all serve, but now we will speak of the duties photographers owe to themselves and each other. And first we may mention the duty of fair and honorable competition: an open and honest bid for public favor by good work and polite attention, without descending to any of the clap-trap, horse jockeying tricks

and devices that mark the vulgar tradesman's arts. No slander or defamation of a rival's business or character. No ill-natured, jealous, and malicious remarks about his style of work. No evil comparisons of your own work with that of your competitors to their discredit. Praise and exalt your own good with all the faith and ability you possess, but let your rival's bad alone. The public will find out soon enough if it is bad; and if not bad, will condemn your selfish falsehood in so representing. Do not obtain bad or defective pictures made by rivals under unfavorable circumstances, and exhibit them as samples of their average work. Above all, do not send men around to obtain pictures made with unfavorable conditions, such as late hours or dark days, and then take the worst pictures so produced, and exhibit them in your own gallery around one made of the same man by yourself under the most favorable conditions and with the utmost care, then call public attention to the contrast as a fair comparison. I have heard of such instances, but I trust for the honor of human nature they are rare; as the Roman Senate refused to pass a law against matricide, holding it morally impossible for a man to murder his own mother. And it is sure any man who could descend to such a pitiful trick must have a screw loose, not only in his moral but his intellectual nature, not to see and know that such deeds in their very essence are moral boomerangs, ever liable to return in the most roundabout ways with fatal effect upon the one who starts them. Such conduct always injures the inventor more than his victims, as slavery always injured the masters more than the slaves, it always being more fatal morally to do wrong than to suffer wrong.

A fair and manly competition must also include the question of prices. There is a tendency now in photographic circles to invigorate business by wholesale reductions in prices, reductions which I believe to be unwise in principle, and will be injurious in results. The prices of all photographic productions have been steadily forced downwards, while the amount of skill, care, thought, and labor used in producing them has steadily augmented. The average photographer is now compelled to use as much

mental force and activity as is expended by the average doctor or lawyer, and he does the world as much if not more good than both, with less harm than either, and he is entitled to as good pay for his services. To be sure a slight concession may be advisable, in deference to the prevailing tendency of the times, because maintenance of prices in one line while all others are reduced is equivalent to raising them when others remain stationary. But here in New York some of our largest and oldest galleries have reduced to half or less than half of former prices, and it is said that even those who nominally maintain old rates need very little importunity and very slight excuse to make large concessions, while some photographers have come down flat on their marrow bones, and make pictures at prices that must require a photographer to labor harder and more hours than a 'longshoreman, and for less wages. Moreover, when a photographer in the same town and street, who has been maintaining an equal competition with his rivals, abandons that and appeals for favor through a lower scale of prices, he virtually makes confession of conscious inferiority of workmanship, and the public so understand, until it is almost sure that throughout the country those who have best maintained prices have been most prosperous. Finally, if your superior rival follows your lead and reduces too, you are again brought to an equality, and must compete in skill and quality, or descend again and again until you are one or both ruined. Is not this consideration enough to deter one from entering rashly on a course that may end so fatally? Of course no one can deny the right of any man to serve the public on such terms as he chooses, and it is certainly more honorable to make good pictures at poor prices than to make poor pictures at good prices. Also I think no one will deny that there must be among photographers some considerations of duty in this regard, like all those unwritten laws that hold society in fraternity with more power than all our civil laws; those considerations of duty and courage which make a man bear bravely when the unequal social compact presses too hard upon him anywhere, or the cowardly abandonment of duty which lets him shrink

and pull away until in danger of bringing the entire structure down in ruin upon himself and others. Every one must admit there are such duties, and the only thing in photographic life is to find and follow them wisely.

New York, October 19th, 1877.

# SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday, October 4th, 1877, Vice-President George W. Hewitt in the chair.

The Recording Secretary being absent, on motion, George B. Dixon was appointed Secretary pro tem. The minutes of the last meeting were read and approved.

The Chair reminded the Society that this was the annual meeting, at which it was customary to appoint officers for the ensuing year.

Mr. Corlies said a Nominating Committee had been appointed last year, and asked if any of the members of that committee were present.

Mr. Hewitt, on behalf of the committee, reported the following named gentlemen as composing the ticket: President, Ellerslie Wallace, Jr.; Vice-Presidents, John Carbutt and Joseph W. Bates; Recording Secretary, D. A. Partridge; Corresponding Secretary, Carl Seiler, M.D.; Treasurer, S. Fisher Corlies.

On motion, the report was accepted.

Mr. McCollin said he was interested recently in examining a sunshade for skylights, constructed of movable strips of ground-glass placed a few inches apart, one edge extending over another like the slats of a shutter. By this arrangement he said the direct rays of the sun were obstructed, a good diffused light was obtained, and that large shades could be placed over skylights with little danger of being blown down; as the slats were movable, they could be turned so as to allow the wind to pass freely between them.

Mr. Chandler said the same arrangement was much used in France.

Mr. Bates said he had seen the same in England.

Mr. Bell said that he had a shade con-

structed on much the same plan, except that every other slat was of blue glass instead of ground-glass. It was very costly, and did not come up to his expectations.

Mr. Bates exhibited some lantern slides made from negatives taken by himself on the canal-boat trip.

Mr. Chandler exhibited some mounted prints from negatives with D. A. Partridge's emulsion. The subjects were mostly trunks of large poplar trees growing in the vicinity of Wilmington, Del. They were much admired by all present.

On motion, adjourned.

George B. Dixon, Secretary pro tem.

Boston Photographic Society.—A regular monthly meeting of the Society was held at Mr. J. W. Black's studio, October 5th. Mr. Southworth, chairman of the Committee on Donation, stated that there had been only two applicants for the donation this year, without any real claim for a new discovery, and as the offer was made for a new invention, he thought there had not been enough competition to warrant the committee in awarding the prize, and would, therefore, like the matter left open for further competition. The meeting agreed with him.

Mr. J. H. Beals, of New York, was introduced by Mr. Black, and very attentively listened to while exhibiting and explaining the taking of two very fine panoramic views of the city of Boston, one measuring seventeen feet in length. His pictures were much admired, and created a great deal of praise, and a vote of thanks was given him for his very interesting exhibition.

Mr. Low called attention to the fact that Mr. T. R. Burnham, one of the oldest and most active members of the Society, and a hard worker as well for a number of years, had left the city, and he moved that a committee of three be appointed to address resolutions in the matter. Messrs. Southworth, Low, and Richardson were appointed the committee.

Quite a number of pictures of various kinds were presented for inspection by the members, including some from dry plates made by Mr. C. A. Richardson, which were very excellent.

Mr. Benjamin French invited the members to examine some experimental photographs made with the new Voigtlander Euryscope lens, which he has lately introduced into this country. The specimens were very fine, and remarkable for sharpness and large field.

Ernst F. Ritz,

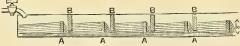
Secretary.

# ON A VERY SIMPLE WASHING TROUGH.\*

BY NELSON K. CHERRILL.

The simple contrivance I am about to describe is one I have made for my own use, and will be found, I believe, as good as, or better than, many much more elaborate patterns. Should any of your readers think well of this, I would advise them to try one like it, as I am very fully satisfied with the work of mine.

The trough consists of a board some seven or eight feet in length, with two boards nailed on to the sides of it, the length being divided into a number of partitions, or cells, by pieces of wood, as shown in the cut. The



drawing shows the trough in section: the pieces, A A A, are about three inches wide (i. e. high), and are nailed to the bottom of the trough; the pieces, B B B, are the same width, or perhaps a little wider, and are fixed right across from side to side, but so as to be quite clear of the bottom of the trough. The whole trough is placed at a slight angle, and the water simply runs in at one end from a tap, and out at the other into the drain.

It will be seen, on inspection of the cut, that the passage of the water through these little cells or divisions in the trough is in this wise. It enters at the upper side of the cell along the bottom of the trough, and runs over the top edge of the lower side of the cell into the well or division between A and B, whence it finds its way into the cell next below, and so on in through them all, entering each cell in turn at the bottom. Two or three stout

I never place more than five or six prints in each cell or compartment, and I find that by being particular they do not stick together at the first; they get into the currents of the water as it flows, and keep on moving about all the time the trough is in action. I use as many of these troughs as are needed to take the prints done in the day's work, and I am quite confident that, in the morning, my prints are more free from hypo than they used to be when I washed them in a very ingenious but clumsy contrivance, with all sorts of water-wheels and self-acting syphons and other complications.

It will be seen that in these troughs the water that washes the prints in the first department or cell goes on to wash those in the next, and so on to the end; so that those in the lower part of the trough are washed in

the washings of other prints. At first I thought this objectionable, but on careful consideration and experiment, I have proved that no mischief arises

from this apparent shortcoming in the apparatus. I found, for instance, that a test solution being poured into the topmost box till it overflowed, and the water then being turned on, and the trough set in operation, the solution was carried through the trough, and expelled from all the cells, in less than ten minutes, so completely that not a trace of it could be found even in the last box.

I was induced to try some such plan of washing as I have here described from the exceedingly satisfactory results, as regards permanency, which I used to obtain when playing with photography as an amateur. I then washed the prints done in the day (perhaps two or three small views) in a saucer, under the tap in my father's back kitchen. Whether permanency depends upon washing, or not, I do not know; but I do know that the prints I washed in the manner described fifteen or sixteen years ago, are as bright and good now as they were the day they were done.

pins stuck in the top of the dividing pieces A A serve to prevent the prints being washed over into the wells, and so choking up the concern. I have provided a loose cover, consisting of three pieces of braid, to keep out the dust, etc., as the trough is used out of doors.

<sup>\*</sup> From the Photographic News.

I believe photographs (silver prints) done in this part of New Zealand are more permanent then is generally the case, and I can only trace the reason for this to the extraordinary purity of the water supply. There is not, I believe, another city in the world so well supplied with water. Every house has its own artesian well, and the water that comes up is so pure that you can make a nitrate bath with it without previous distillation, and that bath will work as well as any distilled water bath ever made.

CASHEL ST., CHRIST CHURCH, NEW ZEALAND.

#### Negative Prints.—Wet Collodion.

[Translated from Mr. Davanne's work, Progress in Photography, for the Philadelphia Photographer.]

THE SILVER BATH.

In the wet collodion process the condition of the silver bath has an importance at least as great as the good quality of the collodion. If it is easy at the start to make an excellent silver bath by using pure nitrate of silver, or recrystallized nitrate of silver, that is to say, purified by a second crystallization in distilled water, as is recommended by English operators, it is not easy to keep it a long time in this condition, as the collodionized plates which are plunged in it may soon produce a change by introducing foreign elements, due either to the cotton which is partially dissolved therein, as has been shown by Mr. Camuzet, or to the impurities of the alcohol and ether, or, finally, to the alkaline or metallic nitrates, which necessarily result from the formation of the iodide and bromide of silver.

Of these impurities, those which exercise the most injurious influence are those that result from organic elements; but they are also those which may be most easily got rid of by the simple process of solarization, that is to say, the prolonged exposure in full light and even in the sun. We think conformably with the advice already given, that every photographer should have two silver baths to be used alternately, using one whilst the other is being purified in the sun.

Under the influence of the luminous rays the greater part of the organic matter is burnt by the nitrate of silver, which is reduced at the same time, and very small quantities of freed nitric acid contribute to render the prints more brilliant and pure.

This solarization has a quicker effect if, before exposing the bath to the light, care has been taken to make it slightly alkaline, either by a little carbonate of soda or oxide of silver; but in this case the bath cannot return without assistance to the acid state, but it must be acidified by degrees before being used. We prefer exposing the bath in the sun without modification. The reaction is slow, but takes place under favorable conditions.

For the average silver bath use:

Nitrate of silver, pure

and crystallized, . 7 grammes (108 grains). Distilled water, . . 100 c.e.  $(3\frac{3}{8}$  fl. ozs.).

In winter the quantity of nitrate of silver may be increased to 8 grammes (123 grains).

When there are prolonged exposures made with wet collodion, it frequently happens in the development that reductions and spots are produced, owing to incomplete desiccation. These reductions are formed quicker when an old silver bath has been used, one containing more alcohol and iodide of silver. In this case it is well to sensitize the collodionized plate in an ordinary bath, and when reaction is complete to plunge it for a few instants into a second bath of the same strength as the first, but which has been but little or never used. This second bath, being neither alcoholic nor loaded with impurities, desiccation is less rapid, and it becomes possible to prolong the exposure without giving rise to too many reductions. Evaporation may also be retarded by placing in the camera a dish containing a mixture of water and alcohol in equal parts, or bibulous paper impregnated with this mixture. The atmosphere of the camera is saturated with these emanations, and it is possible to obtain a much larger exposure.

Many operators give themselves much anxiety on account of the weakening of the silver bath, caused by the sensitizing of a great number of plates. We believe there is no necessity for this alarm, as 170 parts of nitrate of silver are decomposed by 182 of iodide of cadmium, or 144 of iodide of ammonium, or 136 of bromide of cadmium, or 98 of bromide of ammonium, these salts being anhydrous.

If we establish an average we see that very approximately, that to decompose 1 gramme (15 grains) of nitrate of silver, it requires 1 gramme (15 grains) of the iodides and bromides dissolved in the collodion. Now, in a litre (34 fl. ozs.) of collodion there are (ordinary formula) 12 grammes (185 grains) of iodide and bromide. In a litre (34 fl. ozs.) of silver bath there are 70 to 80 grammes (1080 to 1235 grains) of nitrate. It would, therefore, be necessary that the whole of the litre of collodion should pass into the litre of silver bath, so that the litre of the latter should lower from 1 to  $1\frac{1}{4}$  per cent. In these conditions it is the volume of the silver bath that diminishes quicker than its strength, and we may be sure of remaining in a normal condition if, to bring it back to its primitive volume, we make the quantity of the new bath necessary at 8 or 9 per cent. instead of 7 per cent.

However, if it is necessary to ascertain the degree of the negative bath, the salt hydrometer must not be used, as its indications would be false, owing to the presence of alcohol, of ether, and other foreign substances. The method given on page 407 of my work on *Photographic Chemistry* may be used.

The strength of the silver bath should also be proportioned to the quantity of iodide and bromide contained in the collodion—a little also to the nature of the cotton. With a bath that is too weak sometimes we find on the plate irregular, dull waves, marblings, which are better seen by transparency after sensitizing. These marblings are generally found near the draining corner. Sometimes long and dull lines are formed, regular and close as the teeth of a comb. These lines commence on the side of the plate, which first has been covered by the sheet of liquid at the moment of sensitizing. They sometimes reach to a third or even to the half of the plate.

When these accidents occur we have always seen them disappear by adding to the bath from one to two per cent. of nitrate of silver. If the collodion is highly loaded with soluble bromide, or even prepared with bromide alone, baths very rich in silver should be used—15, 18, or even 20 per cent.—otherwise the double decomposition is

very long. Up to the present time bromides alone have been rarely used for wet collodion.

#### WILDE'S DRY-PLATE PROCESS.

[Translated for the Philadelphia Photographer.]

For a long time photographers, especially amateurs, have wished to know about a sure dry-plate process, without being troubled with all its calamities. The first is the long time of exposition, the second the troublesome developing process, which in the most cases, in hands less skilful, produces drying spots in the negative. Mr. Fr. Wilde, at Görlitz, examined all methods, and succeeded so far that we may say he has invented what is needed for taking landscapes, interiors, or scientific objects. The time of exposition is considerably shortened, for only twenty seconds to two minutes are necessary to receive a strong negative which shows fineness in all its details; for interiors of buildings, of course, it requires a longer time of exposition-about fifteen to thirty minutes—which is of no essential consideration, because the plate is dry. Wilde's dry plates are prepared with an emulsion of collodion and brom. silver.\* That side of plate on which the emulsion is to be prepared is, as Wilde says, covered with an under-coating of a solution of one gramme caoutchouc to one hundred to two hundred grammes benzine. After the under-coating is dry the emulsion is poured over like iodized collodion. When the coating is hardened a little the plate is to be dried by moving it over a tin plate, under which is standing a burning alcohol lamp, without exposing the coating to the light of the flame. After drying, the plate is ready for lighting, which may be done immediately or some other time. When the plates are to be used in very warm weather, it is better that the same receive a preservative before the lighting, for otherwise it may occur that they become veiled; but, in normal temperature, the brom. silver emulsion dry plates need no preservative.

Of all preservatives tried by Wilde, the following mixture showed the best results:

<sup>\*</sup> Wilde's dry plates, as well as emulsion collodion for self preparation of plates, are sold by Dr. Schleussmer, at Frankfort-on-the-Main.

One part albumen thinned with six or eight times the quantity of water, and to one hundred cubic centimetres of this solution ten to twelve drops acetic acid added. After twelve to sixteen hours, filtered through paper, and then to this albumen solution are to be added in equal volume parts of a solution of four hundred cubic centimetres water, thirty cubic centimetres acetic acid, and five grammes gelatin.

If we wish to reduce the sensibility of the plates a little, and want to get strongly covered negatives, as are needed for architecture and reproductions, we have to use as a preservative a solution of one hundred cubic centimetres of water and two grammes tannin. Over the dry plate is to be poured at first a mixture of thirty cubic centimetres of water and ninety cubic centimetres alcohol, then rinsed with water till it runs down equally, after which the preservative is to be applied two or three times, and again to be rinsed with water. Then the plates are dried, as mentioned above.

Mr. Wilde gives this preservative method for the warm days only, and we make the remark that we have not found the same necessary, though we have worked with the plates several times in a very high temperature. We have used just as well dry plates of Mr. Wilde as those prepared with his emulsion, and received really clear negatives.

The development is to be done next with a mixture of twenty cubic centimetres alcohol, five cubic centimetres distilled water, and ten drops brom. potassium solution (five grammes brom. potassium to seventy-five cubic centimetres water). The exposed dry plate, which a long time after exposition can yet be developed, is to be poured over with this mixture, and after waiting about two minutes to see the effect, to be rinsed carefully with water till all fatty substances disappear and water runs uniformly over it. After the plate is moistened in this manner, the following developing solution is to be poured over it:

- A. 5 grammes pyrogallic acid, 25 centimetres alcohol, 25 centimetres water (distilled).
- B. 5 grammes brom. potassium, 75 centimetres water (distilled).
- C. 3 grammes gelatin, 20 centimetres acetic acid, 400 centimetres water (distilled).

D. 25 grammes carbonate of ammonia, 150 centimetres water (distilled).

The earbonate of ammonia must be ground very fine; take the most solid pieces. The water for solution ought to be warm.

A short time before using is to be mixed 40 drops of A, 20 drops of B, 10 to 15 drops of C, and 15 centimetres of D.

While the pyrogallic acid develops and gives the details to the negative, checks the brom. potassium, the too rapid effect of the negative, and the formation of veil-like appearance, the acetous gelatin solution supports the clearness of the picture, and the carbonate of ammonia gives the necessary strength.

The fixation is to be done as usual.

Considering how difficult it was till now for the skilful photographer to work with dry plates, we cannot otherwise than give Wilde's process, on account of its simplicity and safety, our best acknowledgment.

After my personal investigation I can recommend Wilde's dry plates very urgently to photographers as well as amateurs.

Dr. S. Th. Stein.

Frankfort-on-the-Main.

#### GERMAN CORRESPONDENCE.

Fox Talbot's Death—" How is Business?"—
Exhibitions—The Chromo-heliotypes of
Albert and Obernetter—Photo-block Prints
—Glass Prints and Heliography—Aubel
Prints—Relief Prints and Carbon Pictures.

A HERO of photography is gone! Fox Talbot, the inventor of paper photography and heliography, and the founder of photography as a multiplying art, has departed this life, and the last star of three-Nicephore Niépce, Daguerre, and Talbot-left us, and a few weeks after Germany had given its last acknowledgment of his merits by nominating him as an honorary member of the Society of Industry. His name will be remembered not only by all photographers and heliographers, but also by spectral analysts, . for he was the first one who advanced the idea of using the spectrum of colored flames for the purposes of examination. To describe all his merits the limited space of a correspondence would not be sufficient, but

they will be appreciated by all disciples and masters of our art.

In glancing about me in other respects, I cannot perceive much of a cheerful nature. Lamentations, nothing but lamentations, from all directions, and there is no prospect yet that this discouraging state of industry and business—the result of over-speculation and frivolity in business during the last years—will make room for better times. The news I read in the first pages of your September issue are more encouraging than what I can give you.

After all, the world does not stand still, and still further it does not lose the courage for exhibitions, nowithstanding the bad times, though they cost an enormous amount of money and not always award the wishedfor medals. Two such exhibitions are now in progress, one at Nuremberg and the other at Amsterdam. The latter I have not visited, but about the former I can report. These exhibitions include not only photography, but all the multiplying arts, and among which photography takes the first rank as a multiplying art. The portrait branch stands in the background, however, for only a few portraitists exhibit; but the display of photographic reproductions was a brilliant one, as well as the stone, metal, and Lichtdruck methods. Lichtdruck predominated to such an extent that all other articles of exhibition had to stand back. Something new and of an interesting kind was noticed in this line, namely, Lichtdruck in colors-chromos not produced by means of lithography, but by means of Lichtdruck; and this was so much the more interesting on account of two different methods, one of Obernetter and the other of Albert, who both sent articles to the exhibitions. Obernetter's chromo-heliotypes are manufactured in a plain manner. Suppose a rose on a green stem was required to be made in color. First, three negatives would have to be reproduced from the original negative of the rose by means of Obernetter's dust process. In one negative all parts are to be covered except the green leaves, and from this negative a Lichtdruck plate is to be prepared, with which the leaves are to be printed in green color. In the second negative all is to be covered except the rose, the plate to be made and the rose

printed in red; in the third plate, all covered except the background, which is to be printed in a color harmonizing with the subject from the last plate taken. Obernetter reproduced in this manner works of art, such as malachite vases, bronze articles, etc., which were very effective. Albert's heliochromos are entirely different. They show a greater richness in the tones of colors. He manufactures them in the same manner that Ducos du Hauron published four years ago. Suppose there are three squares, one blue, one yellow, and one red; if we take them with common collodion the blue square will show only an effect which, after long exposure, appears as non-transparent in the negative as a white background. If we produce from such a plate a Lichtdruck plate, then the strongly covered blue appears but lightly, while the yellow and red squares are strong. Thus we receive a plate which can be printed in yellow and red But if we make the collodion sensitive for yellow beams by means of the addition of anilin red, in the manner I have shown formerly, then by means of photography the red square only remains transparent, and the resulting negative produces a Lichtdruck plate which is to be printed in red. We can make, also, a plate in which the red and yellow have a strong effect by making the collodion sensitive for red and yellow by means of adding anilin colors, and excluding the blue color by photographing the subject through a yellow glass. Thus we receive a negative which produces printing plates for blue. If we wish to obtain a printing plate for yellow color, we must work with pure collodion, which is sensitive for all colors but yellow. Thus Albert obtains plates for three primitive colors, red, yellow, and blue, and can print them with suitably selected pigments. Of course the selection of colors depends again on the taste of the printer, and in that direction we have nothing to do with the natural colors which are photographed, but only with negatives producing in the photographic way suitable plates for printing in colors. Anyhow, it requires great carefulness in selecting the collodion, and the colored glasses through which the negatives are taken. For every object they are to be

taken differently. The specimens exhibited by Albert are very promising, although it must be admitted that the colors are not quite the same as in the originals.

Besides these specimens, the Nuremberg exhibition shows many other things of interest. There are a number of block-prints, manufactured in a very plain manner, by Grienwald, at Bremen. He takes a collodion positive in line, copies the same on a chrom-gelatin film which lies on glass, and washes it in hot water, after which the black lines of the positive remain deepened on the gelatin film. This relief is cast in plaster of Paris, from which a wax mould is made, and then a metal plate taken by means of galvano-plastic. The clichés thus secured do not answer for strong artistical requirements, but are entirely sufficient for technical drawings, illustrations, and labels.

Of special interest have been the prints exhibited by Aubel & Kaiser. The Aubel print is a secret yet, and so it was most interesting to see a printing plate exhibited for the first time. After a careful investigation I found it proved to be glass, on which was fixed a kind of collodion positive picture. With this the process of obtaining it is not explained, but so much the more mysterious, after the previous reports that the Aubel print must be a glass print, prepared by means of etching or fumigating a gelatin positive on glass with fluoric acid. The printing plate exhibited shows no etching, but only the collodion picture in black, and one would never have taken it for a printing plate.

The imperial printing establishment at Berlin exhibits very fine heliographs. Their glass prints especially attracted attention. The manufacturing of the same is no longer a secret. A negative of sufficient strength, and by means of an albumen coating is made to adhere rigidly to the glass, is covered, instead of being varnished, with a thin coating of chrom-gelatin, and exposed from the back. The gelatin parts under the transparent lines, and thus becomes insoluble and sensitive for fatty black ink. If we wash the plate and ink it with the roller, the ink will adhere at the lined places. We can make only a few impressions from such plates, but it is possible to transfer a copy on stone, and then to print the picture from that. Another process of the imperial printing establishment is to cover the negative with chrom-gelatin, and expose it from the back a long time, after which the unchanged gelatin is washed off with hot water. Then the lines remain in strong relief, and by means of graphite the plate can be prepared for the galvano-plastic apparatus to take a Thus we receive a copper plate which produces beautiful impressions.

Besides this process of printing, there was exhibited the Woodbury print. In Germany this process is made use of by Bruckman, at Munich, and Braun, at Dornach. The latter also introduced recently the Lichtdruck in his establishment, and is publishing by means of this process the hand-drawings of the old masters. The photo-chromic process of Vidal was also exhibited, but with only a little effect. In pigment print the exhibition showed many specimens, although the carbon process in Germany has not succeeded so far.

Yours, truly,

DR. H. VOGEL.

BERLIN, September 30th, 1877.

# Editor's Table.

Mr. W. H. Tipton, Gettysburg, Pa., contributes the first of a series of interesting articles on landscape work in our current number, and we have before us a series of the views made on the tramp described, of Harper's Ferry, the battle-field of Gettysburg, of Gettysburg and vicinity, and other localities, which show excellent manipulation, and good taste in selecting

the points of sight. Mr. Tipton writes and works like a photographer who thoroughly enjoys his profession, as he no doubt does. Such work as this deserves praise and good patronage.

BOYCE'S ADJUSTABLE VIGNETTE PLATES.—Mr. C. W. Stevens (and Douglass) have sent us a circular descriptive of this ingenious contrivance,

which is one of the best, and least clumsy and expensive methods of making vignettes that we have seen. The article is made of brass, and lies close to the printing-frame, and is supplied with a pivot with slots and set screws so arranged as to admit of the utmost adjustability. To these plates are affixed that other most admirable invention, Waymouth's vignette papers, and with these two together, the most complete contrivance for making vignette pictures is obtained. Mr. Henry Rocher, of Chicago, says, after a severe and thorough trial, that they facilitate printing and save considerable time, and are the best of the kind yet introduced. Those who stumble through their orders for vignettes without these contrivances, are not up to their busi-

Complimentary Notices.—One of the best signs of the times, we think, is the fact that photographers are getting more and more complimentary notices from their local papers. It shows that good work is better appreciated than it formerly was, and that there are more good photographers than formerly. Among those which have recently come to our notice has been one of the new studio of Mr. D. C. Burnite, of Harrisburg, who has opened a new studio at No. 16 N. Third Street, where passers-by are attracted by the handsome display he makes, and by the good work which he produces. Mr. Burnite also continues his old studio at 1221 Ridge Avenue.

Mr. A. McComick, Oxford, Pa., also receives very highly complimentary notices from the Oxford Press, of his exhibition of photographs at the Oxford Agricultural Society's Annual Fair. It is said by the Press that Mr. McCormick's exhibit there is superior to any one exhibit made at Photographic Hall at the Centennial. We know Mr. McCormick to be an excellent photographer, and ambitious as well to do the best of work.

OBITUARY.—As briefly noticed in our last number, photography has met with another sad loss in the death of Mr. W. H. Fox Talbot, F.R.S., a gentleman to whom photography is largely indebted for its present status. Mr. Talbot's discovery was of even more value than Daguerre's, if possible, and it is always painful to know that those who have been instrumental in giving so freely, and thus helping photographic progress so much, must follow the order of nature, and one by one leave us alone until our turn comes.

We have not the power to express as we should our admiration of the man who so generously gives what he knows for the benefit of the fraternity. It is in sharp contrast with the action pursued nowadays by so many who not only attempt to exact large sums for what they have discovered, but for many things which they pretend to have discovered.

We refrain from making more extended remarks upon the death of this valued co-worker, and give way to those made by our contemporary, the editor of the *British Journal*, who, having been a personal acquaintance, is more able to do justice to our lamented friend than we are.

CENTENNIAL LANTERN SLIDES.—All the lantern slides made of the Centennial Exhibition are made by the Woodbury process. The works of the company who owned the said process having closed, of course the supply of such slides must be limited at present to the stock on hand. Fortunately the Centennial Photographic Company had a fair stock made up, and they have wisely reduced the price; parties who are in want of such articles will do well to send for prices.

THE FIRE AT THE PATENT OFFICE .- All of our readers are familiar with the fact that a very destructive fire occurred in the Patent Office during the latter part of September, by which many original drawings, models, etc., were destroyed. So great was the interest on the subject that Messrs. Howson & Son have issued a circular for the information of their patrons, which states that all of the original drawings have been preserved; that the library received no damage with the exception of a slight wetting; that the original file of all patents is intact; that the record-room, containing bound volumes of manuscript specifications and volumes of all printed specifications and drawings, indexes, letter-books, etc., has not been injured; that the assignment records are untouched; that the examiner's rooms are uninjured by fire, and that by this time the business of the Patent Office is no doubt going on as usual. Among the models saved were those which most interest us, namely, those pertaining to chemistry, optics, and photography. The latter is a particular source of congratulation.

Photographic Mosaics, 1878, is well under way, the contributions are coming in thick, and they are good, and we believe that the next issue of this annual will be better than any of its predecessors. There is still room for a few live, practical articles, not too long. Each author receives a bound copy of the author's edition free.



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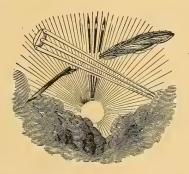
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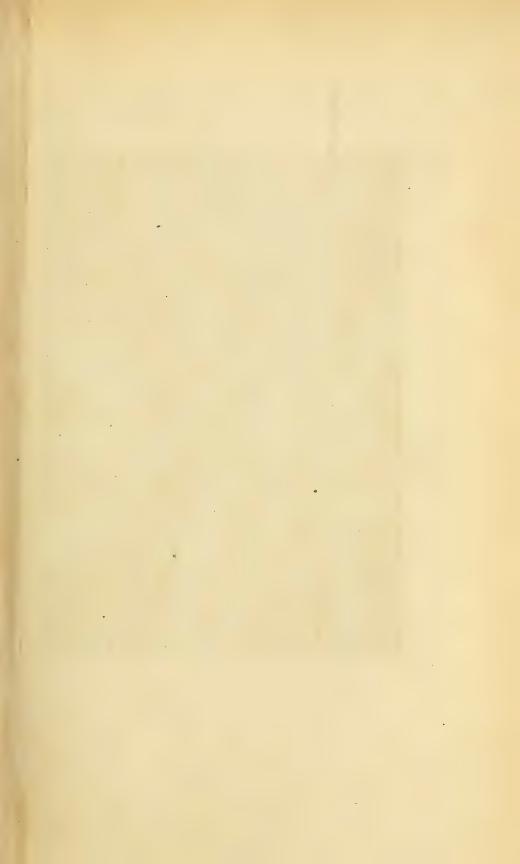


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J LOEFFLER,

Land in the Library

TOMPKINSVILLE, N. Y

"THE FISHERMAN'S DAUGHTER."

# Philadelphia Photographer.

Vol. XIV.

#### DECEMBER, 1877.

No. 168.

Entered according to Act of Congress, in the year 1877,

BY EDWARD L. WILSON,

In the office of the Librarian of Congress, at Washington, D. C.

#### 1878! SOUND THE ALARM!

WE wish you all a Happy New Year! We hope to continue the issue of this magazine during 1878, and make Volume Fifteen (!) beat all its predecessors in quality and interest. We make our announcements on page 3 of the cover. Please read them. We have also issued a private circular to our patrons, old and new. If you have not received it, write us for one. Let us join hands again, and go hopefully forward and upward, and good times shall come yet.

Please read the circular carefully, and send now for the best photographic magazine in the world for 1878, and thus secure a Happy New Year.

#### OUR PICTURE.

WE are indebted this month to Mr. J. Loeffler, of Tompkinsville, Staten Island, for the negatives from which our picture was made. We are glad to see photographers working in the direction of composition or subject pictures, for the effect upon them cannot help but be educating and beneficial.

We have arrived at such a degree of chemical excellence that there seems but little hope for any improvement beyond what our best photographers have attained, but we are deficient in art culture, and need more education and more practice in that direction. Pictorial effect should be aimed at quite as much as technical excellence.

Mrs. Cameron, whose name was again brought before our readers a short time ago, argues that pictorial effect is even of more importance than technical chemical qualities, and utterly ignores photographic effect where pictorial is obstructed by it.

We think there is no reason why the two should not be made to work together very largely, though there are times when the one must be subordinate to the other. Let us hope that the examples that we are enabled to give in our magazine from time to time, will lead our readers to improve themselves in all directions.

Mr. Loeffler has named his subject "The Fisherman's Daughter," and that he has carried out his idea very creditably no one will deny after an examination of the com-We know not from which of position. the poets Mr. Loeffler obtained his idea; it may be that looking out from his own window upon the beautiful waters of Long Island Sound, that the thought of this picturing of a scene in humble life occurred to him. In any event, we have much suggestion in the kindred art of poesy on the subject, and as we are uncertain which was in the mind of our photographer at the time of its taking, we will, at random, quote some of the beautiful lines which we find written, bearing upon the subject, which

shall be made to represent the thoughts, perhaps, which wandered through the mind of our picturesque little maiden as she sat by the window watching the sea.

First she sings with Tennyson:

"Break, break, break,
On thy cold gray stones, O sea!
And I would that my tongue could utter,
The thoughts that arise in me."

Or, singing again, with an anonymous poet (somewhat modified):

"Blow thou west wind, blandly hover
Round the bark that bears my father;
Blow and waft him safely over
To his own dear home and me.

"When the night winds rend the willow, Sleep forsakes my lonely pillow, Thinking of the raging billow— Father's on the stormy sea."

But, after all, it may be that there is no storm and no danger near at hand, and that her father has merely launched his boat to go out upon his nightly toil, in which case she may be singing:

"Launch thy boat, fisherman,
May our God speed thee;
Let loose the rudder bands,
Good angels lead thee.
"Set thy sails warily,
Tempests will come;
Steer thy course steadily,

And now, as her father steers out upon the surf with his companions, she sings again, in Kingsley's beautiful lines:

Fisherman, steer home."

"Three fishers went sailing out into the west,
Out into the west, as the sun went down;
Each thought on the woman who loved him best,
And the children stood watching them out of

"For men must work, and women must weep, And there's little to earn, and many to keep, Though the harbor bar be moaning."

And.

"She looked at the squall, and she looked at the shower.

And the night rack came rolling up ragged and brown."

Our artist, you may judge from the face of our subject, had perhaps a sadder motive in view; it may be that while our maiden subject looked out hopefully upon the sea, and yet fearing, that the other sadder lines of Kingsley come to her mind:

"Three corpses lay out on the shining sands,
In the morning gleam, as the tide went down,
And the women are weeping and wringing their
hands

For those who will never come back to the town.

"For men must work, and women must weep,
And the sooner it's over, the sooner to sleep,
And good-by to the bar and its moaning."

Nay, more; it may be that her father, the fisherman, is such a staunch old sailor, that she has but little to fear; though where is the one who has any loved one following the sea for a living, that does not experience more or less continuous solicitation as to the welfare of such absent ones. Our maiden may be thinking of the time when her father will amass sufficient wealth to bring home from the sea a ship for her, that will be laden with better hopes and more comforts, and less uneasiness and patient waiting; and as she thinks upon this, Coffin comes to her assistance with his semi-sad, and semi-hopeful lines, and she sings again with him:

"Ah! each sailor in the port
Knows that I have ships at sea,
Of the waves and winds the sport,
And the sailors pity me.
Oft they come, and with me walk,
Cheering me with hopeful talk,
'Till I put my fears aside,
And contented, watch the tide
Rise and fall, rise and fall.

"I have waited on the piers,
Gazing for them down the bay,
Days and nights for many years,
'Till I turned heart-sick away.
But the pilots when they land,
Stop and take me by the hand,
Saying, 'You will live to see
Your proud vessels come from sea,
One and all, one and all.'

"So I never quite despair,
Nor let hope or courage fail;
And some day, when skies are fair,
Up the bay my ships will sail.
I shall buy then all I need,
Prints to look at, books to read,
Horses, wines, and works of art,
Everything—except a heart,
That is lost, that is lost."

How true it is that we all have "ships at sea," and live lives of expectancy some time or other, and how much longer they are coming to port sometimes than we desire. Let us not leave our fair subject in so dismal a mood, however, but rather sing with her in closing Mickle's plaintive lines, sung by the fisherman's family as his vessel is seen coming to port:

"But are ye sure the news is true,
And are ye sure he's weel?
Is this a time to think of wark?
Ye jods fling up your wheel.

"There's nae luck about the house,
There's nae luck at a';
There's nae luck about the house,
When our gude man's awa.

"And will I see his face again?
And will I hear him speak?
I'm downright dizzy wi' the thought,
In troth, I'm like to greet."

In response to our request, Mr. Loeffler has written us some details concerning the production of this picture, which we append:

Tompkinsville, Nov. 12th, 1877.

MR. EDWARD L. WILSON.

DEAR SIR: - Your letter of October 6th, asking for some information in regard to the negatives sent you for the illustration of your journal, has been received, and I cheerfully respond to your request, although I must admit that there was nothing done that is not known to every photographer. The chemical manipulations have been too often described to make it necessary here to repeat them. My light is a north one, with curtains to shut off all that is not required to illuminate the subject. In the present instance, only about three feet square was left open a little behind the sitter, and a white screen was used as reflector. The accessories are of that kind that are found almost everywhere; old pieces of wood, a broken window-sash, etc., put judiciously together for the occasion.

I used an extra 4-4 Harrison lens, with full opening, as a very small amount of light was allowed to fall on the face. Exposure one minute.

I am, yours respectfully,

J. Loeffler.

#### SOME THINGS SEEN AND FELT.

BY I. B. WEBSTER.

CIRCUMSTANCES beyond my control have interrupted the run of my papers for the past two months, which I hope will not occur again, as I desire to tell all that I have seen and felt, that others may not be taken by surprise, when overthrown by some unpleasant enemy to good results in photography. I have seen a patient brought into the operating-room to be photographed, for the purpose of illustrating a peculiar disease, in the interest of medical science, said patient being very much enfeebled by said disease, and scarcely able to reach the operating-room, much less to retain the required position long enough for the operator to secure a satisfactory result. Anything less than a good negative would not do, as it was a special case. The position required was a very unnatural and a very uncomfortable one. But after a long time spent by the "pokey" operator, and much suffering upon the part of the patient, the position, lighting, and view were got. We hear the operator say, "Now, keep still while I get the plate," and then see him disappear through the door of the "dark-room." Some time elapses, and we are wondering what keeps him, when we are saluted with the grating sound of clipping off bits of glass with an old pair of pliers, and the low, sepulchral mutterings of him who went out of sight so long ago in the darkroom. We knew what was up, and if we had not known that he was a good church member (and a Baptist), we could easily have told what kind of a "speech he was making," too. As it was, I presume there was "nary a hard word" in it. All this time our poor patient was suffering tortures with his efforts to keep still, while the doctor satisfied me that he was not a good church member. As all things mortal must have an end, so also did this scene, for the manin-the-dark-room some time after appeared, bringing in his hand a shield containing the plate, upon which so much depended, the preparation of which had been the cause of the "tableau" described. The exposure was made, the patient relieved, and the result waited for with much impa-

tience. My descriptive powers are greatly at fault when called upon to describe that negative. I can only say that the plate being too long for the shield, the man-inthe-dark-room had made it shorter by nipping it off with the pliers while the coated side was up, thus enabling him to save all the particles that flew off by catching them on the face of the plate, and as he was too long in doing it even that way, the plate partially dried. Now I need not try to describe its appearance after developing and If you who read this paper are fixing. practical photographers, you can imagine it. If you are not, an "optical demonstration" would be necessary. I saw this performance, and felt like kicking the operator out of the house. The patient was too much exhausted to try again, the doctor was too mad to do anything but swear, and forever after stay away from that gallery, while I was so full of disgust that I had no more use for that operator. The best way is to have the plate always the right size, but when caught with one that is too long, bite off with pliers, holding the coated (face) side down.

I made reference to "rotten egg" albumen paper in my article published in the August (1877) number, page 232, not once dreaming that any one could construe it so as to make it appear that I thought the albumenizer used rotten eggs. It required Mr. Spencer's acute nose to smell that idea out of my paper. I intended to convey the idea that the manufacturer of albumen paper failed to coagulate the albumen after its application, and that it spoiled in consequence; not that the eggs were rotten at the time they used them.

#### HONOR TO WHOM HONOR IS DUE.

It is astonishing with what coolness, expressing it mildly, some people appropriate the labor of others. In last month's number of this journal, at page 327, there is published an article headed "Photographic Process giving Half-tone," a translation of a paper presented to the Belgian Association of Photography by Jose Julio Rodrigues.

This new process was invented and patented in England only twenty-five years ago,

1852, by none less than the great F. Talbot, and in Muspratt's Chemistry (English edition) under the article "Photography," division "Photo-engraving," one can find the process given in almost the same words as published in this translation; also in Ure's English Cyclopædia, ditto in Appleton's under the head of "Photography," and in the opening article of last month's number, in an obituary of the late Fox Talbot, the same process is alluded to.

If Mr. Rodrigues had introduced a new feature or improvement, no matter how small, he would have been entitled to some consideration, but as it is, it is an unblushing steal. If it was not for the fact that this process introduced the use of gelatin in combination with chromic salts for photographic purposes it would not merit consideration, as it is valueless for the purposes for which it was intended, being based on an impossibility, viz.: to etch the metal surface underneath the gelatin film without detaching it, when, in fact, as soon as the etching agent has penetrated the gelatin film to the surface of the metal plate, and its action has commenced, the support of the film is removed, and it is lifted off, when the action of the etching agent has to be stopped. This explains why only a very delicate impression on the plate is obtained, not deep enough to print from. And of what use is a printingplate which cannot be printed from? This defect Mr. Talbot was unable to overcome, and that has been the reason for its twentyfive years' slumber. But what use is it to resurrect a process of which Mr. Rodrigues himself says, "does not appear to me to be the most useful," and to send a paper all the way from Lisbon (if I understood right) to Belgium to be read, about a process he says himself does not accomplish its end; the less so when we have in successful operation photo-lithographic processes by which half tones are produced. To cover the metal plate first with the resin powder was rejected by Talbot as preventing the rendering of the half tones, instead of which he applied the resin after exposure and before etching.

Having made a few experiments in this same direction as long as six years ago, I would advise experimenters that this process

is not worth the gelatin to be used, much less the labor necessary to conduct operations so delicate.

F. A. WENDEROTH.

PHILADELPHIA, November 8th, 1877.

#### PHOTOGRAPHIC DUTIES.

No. VII.

BY E. K. HOUGH.

(Concluded.)

In concluding these fragmentary papers on photographic duties, in which I have merely touched upon a few of the most prominent ones, like morning light on the hill-tops, not attempting to cover all the broad fields that spread out before every photographer who thinks about duty and his relations thereto, I shall give my remaining space to the duty of photographers writing for such publications as give information to the greatest number of our fraternity. All photographic serial publications are started primarily by stockdealers or those interested directly or indirectly in advertising and furnishing goods to the thousands of practical operators, and they are all sustained principally thereby. None of them could live by their subscriptions only, and none of them, at least in this country, pretend to sustain a staff of paid contributors; but any of them do and will publish willingly any communication having for its motive the interests of photography, and their pages are mainly filled by free contributors.

Any hint or suggestion for easier and better working by any method, the modification and improvement of any process, any stray thought or the relation of any incident calculated to enliven or encourage the poorly paid and lightly appreciated members of our craft are always welcome to them. And the publishers say they ask and urge their readers, often personally, to contribute something, anything, that has or could have any value, ever so little, to any brother craftsman; but in general the response is slight and meagre to what they know it might be and ought to be. Now this is such a direct violation of positive duty, as I shall endeavor to convince every reader, that this extended consideration of it will not seem forced or uncalled for. But here let me explain that I do not refer to great improvements and inventions, worthy of patented protection, but mainly to those little hints and dodges, ideas and suggestions, new methods for old uses and new uses for old methods, thousands of which are abroad among the fraternity, some of which are known to all, but all of which are known to few or none, yet the knowledge of which might easily be made general with great benefit to every one concerned, and with injury to none.

Photographers are related to each other and their art very much like the inhabitants of a new country on the far frontiers. The inhabitants of a new country are dependent on each other for thousands of neighborly good offices. They call each other neighbors for ten and twenty miles around; they drop all business, and go at call to raise a house or barn, a church or school-house, to break a road or build a bridge; turn out en masse to hunt a lost child or a stray horse; for any and all such purposes requiring united effort, counting even private improvement to be of public benefit, and no labor as lost that works the public good. And any one who shirks his share of such common duties is marked and counted as a mean-spirited, selfish man, which he surely is in the majority of cases.

Now photography is so new among the arts, we are all so laboriously working our way on the narrow frontiers to its broad domain of future empire, we are all so ignorant of what we might do with even the knowledge we now possess, there are so many thousands of valuable experiments being constantly tried for new applications of known principles, and so many hours of valuable thought given to tracing back from known but isolated facts to some unknown but common principle that may connect and govern them all for systematic use, so much of all this activity, that probably there is not a gallery in all our country, east, west, north, and south, where there is not one or more new idea or application in practice that if explained and recorded would be of genuine advantage in general use.

Many of these ideas are kept carefully secret as valuable advantages by their possessors, not seeing in their short-sighted policy that if the practice of generously imparting such knowledge became common each would get a thousand new ideas for his one, and yet retain the use of his own. Others, not specially secretive, claim they are willing enough to impart, but have no time to write for publication, when in truth they are only too indolent; for many of them spend hours over beer and billiards, cards and tobacco, and kindred amusements, yet have no time to write. Yet others, and I trust the large majority, have simply never thought about it as a duty, and only need a little reflection thereon, with the promptings of their own honor, to respond fully and freely. But there are some, and not the lowest in the ranks either, who say boldly they care nothing for the general improvement, and are solely concerned in their individual interests. All they know they will keep, all they can learn they will put to good money-making use, leaving fools to make experiments and record them for the general good. Yet all such are using in their own daily business results gathered from the labors of thousands, freely given, and for which they have made no return, not even thanks. Every one of them read the journals, and use every new idea that can serve their turn therein, generously recorded by some of their compeers, but never put their own little contributions into the common fund. Such conduct is neither honest nor manly, for who would be a sponge, absorbing everything in reach, and giving out nothing unless squeezed?

It is said the genuine Anglo-Saxon-American or English—is too earnest in his sense of right, and too proud in his independence, to be under obligation for anything he can repay, even so much that if he stops only for a moment on the street to be amused by a monkey and a hand-organ, he at once feels indebted to the owner, and hunts in his pocket for pennies to cancel the obligation. It is in secure reliance on this principle of honor that free lunch-rooms are started and made to pay. But it is further said that all nationalities are not so minded, for I read an account not long since of an American who started a free lunch-room in Paris, but was obliged to suspend, for the

elegant and philosophic natives came in freely to partake of his proffered hospitality, tranquilly ate his tempting delicacies, serenely looked over his rich display of wines and other salable refreshments, then coolly walked out without buying a cent's worth, simply because they did not want them, while an American or an Englishman would have bought what he did not want rather than go away under a sense of obligation for what he had taken.

Perhaps some idea of how far this spirit pervades photographic literature might be gathered among the names of those generous amateurs and professionals who do contribute their knowledge freely, without price or reward, from the various nationalities; but I have no desire to suggest such invidious comparisons. I would only respectfully urge every photographer who is conscious of being in possession and advantageous use of any knowledge derived from the results of others' labors freely imparted to him through the journals, and for which he has made no more adequate return than merely paying for the printing by his subscription to the journal, to hasten with the record of every new idea, hint, or suggestion that he knows to be of use to himself, and that he believes would be of use to others. Describe them clearly, and give them ungrudgingly, thus putting the recipients and users upon their honor to make all and every similar return that may be in their power. And so shall the common fund of photographic knowledge prosper and increase a thousandfold, and each will have his full share in the common good.

# A FEW WORDS ABOUT FADING OF CARBON PHOTOGRAPHS.

BY F. A. WENDEROTH.

You know as long as twelve years my sentiments about carbon photography, therefore you know that the following remarks are not to be considered as a change in my opinion, which has always been that a properly made carbon print in some respects is superior, in many equal, and in some inferior to silver prints, and that for every-day work, if I had to choose between the two, I would, without hesitation, declare in

favor of the silver; but as justice to all should be our motto, I take the liberty to send you a few remarks, called for by an article in the November number of the Photographer, by Mr. E. Z. Webster, entitled "Faded Permanency." Mr. Webster undoubtedly states what he has seen, but arrives at conclusions not warranted but excusable in one who seems to have but a limited knowledge of the matter he criticizes. Carbon photographs made with the proper materials are absolutely permanent in regard to tint, and, under ordinary circumstances, likewise so in regard to materials, but I do not say indestructible; neither are silver prints.

In an article of mine, published about twelve years ago in your journal on the "Merits of Carbon vs. Silver," in regard to the cost of production, I said that carbon prints of a reddish-purple tint, resembling photographs, could only be made permanent by the use of one of the most expensive coloring matters, madder lake, and which would raise the cost of production considerably, and that by employing the cheaper kinds of crimson lakes the prints would soon not only lose their purplish tone, but depth also. In a rejoinder to this article, I have forgotten by whom, I was called an ignoramus to call crimson lakes unstable. thought then to argue with one who had so little knowledge of coloring matter as this person would be useless, and therefore passed his assault with silence.

Before I made photography a study I had practiced painting for about fifteen years, but being careful in selecting my materials I would never employ a color without having tried it for permanency. The mode adopted was to mix some of the coloring matter with silver white, and smear it on a pane of glass in a window facing south, and some on a piece of glass for comparison kept in the room in the shade, and generally a few days of sunshine would be sufficient to prove the worth or worthlessness of any color so treated. Now any careful painter knows that there is only one kind of this beautiful transparent red color which is permanent, and which in English is called "madder lake," "crapp lack" in German, and "laque garance de Smyrna," in French.

Probably the prints operated on by Mr. Webster and Mr. Leighton were made from tissues having coloring matter mixed with the black of an unstable nature, which will easily explain the fading, a fault and a cheat of the manufacturers of the tissue, showing either their knavery or ignorance, or their shortsightedness, by substituting for the purpose of making money a fading for a permanent color; and I say again, to make perfect carbon prints the operator must make his own tissue, and not be obliged to buy stuff he does not know anything about.

When I commenced carbon photography I thought it more desirable to imitate the tone of mezzotint engravings, which, in my judgment, is more artistic than the redbrown photograph, and therefore made all my tissue of pure India-ink and the finest ivory or grape blacks. Such carbon prints can never fade, and then there is nothing more permanent than carbon.

The red oxides of iron which are permanent might be substituted for the madder lakes, but being opaque the tone of the print will be lowered.

In regard to the cracking of the prints, it is a sign of carelessness or faulty manipulation, and if the transfer has been made on a paper thinly gelatinized, and afterwards passed (after the transfer has been effected) through a solution of alum, such a print can only be detached from its support by force, and will not crack. If Mr. Lambert is unable to work his process during hot weather, it would only show that he is not master of a matter he is pretending to know all about, but it does not prove that carbon cannot be worked successfully in the hottest weather.

What Mr. Wenderoth states as to the fading of colored tissues is true. Mr. Lambert warmly advocates warm-colored tissues as a great step forward in "Lambertypy," and hence the great wrong practiced upon the public, because it is notoriously true that all such carbon tissues fade as described by Mr. Webster. Therefore if all Lambertypes are made on such tissue they will sooner or later all fade.—Ed.

Your subscription expires this month. Please remit now for 1878.

#### A. M. C.'S TROUBLE.

I have been carefully perusing "A. M. C.'s Trouble," and the responses thereto, in the last number, and certainly think them very amusing. Although a young man, I am an old photographer, and feel greatly interested, and have been speculating to myself whether it would be possible to arrive at any conclusion as to what the trouble really is with A. M. C.

I see you are somewhat impressed with Mr. Frank Jewell's suggestions, who, after reading the article of A. M. C., came to the conclusion that it must be the albumen or the manner of applying it. Well now it seems to me as though a man with twenty years' experience in the business certainly would know how to clean a glass plate. I know it is an all-important operation, and requires a good deal of care and attention; but it is not necessary for a man of A. M. C.'s experience to use any elaborate formula, not even melted ice or a fine sponge; to filter through those things are all very well, but not essentially necessary.

I would suggest to A. M. C. that if he has any doubt about his plates being clean, he had better go to work the old-fashioned way for an experiment, and clean his glass with alcohol and rotten-stone; that will decide the thing at once whether or not it is in the albumenizing.

But, in my opinion, the real cause of A. M. C.'s trouble is impure chemicals, of which the market is flooded, and it takes a photographer a good many years to find out which is good and which bad. For instance, we have acetic acid that smells like benzine, which has caused me for many days to flounder in a fog; but I found out at last that there was a better article in market (White & Martin's), and ever since then I have been in a clear atmosphere. have had similar experience with nitrate of silver; some of it contains traces of lime, copper, soda, and potassa, and other impurities, according to the analyses of prominent chemists in Boston. I find that Powers & Weightman's chemicals are generally the most reliable, and could not be induced to use any other silver. A. M. C. says he threw aside all his old chemicals, and made everything new. Now it would interest me very much to know if he used the same chemicals as before; if he did, why of course the results would be the same. Let him try chemicals of different manufacturers—say, make a small bath with Powers & Weightman's silver; buy some reliable collodion; get some pure sulphate of iron; and use White & Martin's acetic acid; clean the plates carefully; and let me know the result.

Ernest F. Ritz,

22 Winter St., Boston.

In reading over the Philadelphia Photographer of this (October) month, I was very much pleased to see so many brother photographers willing to help me out of my "persistent evil," as published in the journal of last month. I read the remedies over carefully, but could see nothing that I had not, in some way, tried. Just after the September number of the journal was published, a photographic firm in New York wrote to Wilson, Hood & Co., of your city, saving that if I would only chase the flies out of the room when I albumenized my glass, that my trouble would pass away. Wilson, Hood & Co., thinking that there might be something in it, sent the letter to me; but as I never saw a fly in the room when I albumenize my glass, and as the trouble commenced at a season of the year when there was not a fly alive and kicking nearer than the South Pole, I was satisfied that the "shoo fly" remedy was not what I needed, for this trouble commenced in very cold weather, and lasted through every kind of temperature, from zero to blood-heat. Mr. Jewell thinks the trouble must be from the substratum on the glass; but that could not be, from the fact that I had the same difficulty with glass thoroughly cleaned, which did not have any previous coating; and again the trouble was just the same with both albumen and gelatin coating. But I would say to all these good brethren, and especially to yourself, that my trouble seems to have entirely disappeared, and the only remedy I made use of, that I had not tried before, was a liberal dose of let it alone. I use the same bath, same kind of collodion, same developer, same general way of preparing my plates, and work in my same old

way, but my genial friend does not make his appearance; and if he is satisfied to stay away, I am sure I am. Please allow me to congratulate you on the very handsome appearance presented by the Philadelphia Photographer of this (October) month. It does me good just to look at its exquisite neatness, saying nothing about the valuable matter it contains. The photographer that does not subscribe for it makes a great mistake.

A. M. C.

I was troubled in a manner similar to A. M. C. last summer, and the utmost cleanliness, changing of chemicals, etc., would not banish the evil. I had oyster-shell markings in perfect banks, and besides, strange to say, the worst part of them started not from the bottom, but from the top, of the plate, or the part that stood top in the plateholder exhibited the most beautiful silverwhite curtains spread over the corners thereof, and obscured the plate sometimes seveneighths of the whole of its length.

After blundering through the chemicals for awhile, I turned my attention from them to other directions, and supposed causes, but failed in all. At last I bethought me of the edges of the plate, which I roughen with a scythe-stone before I place them in the acid, prior to albumenizing. Perhaps organic substances of some kind were caught and lodged in these rough places, and caused all the trouble. I made a solution of white wax and ether, let it settle, and decanted the liquid. With this I moistened a clean flannel rag, and gave about a dozen of the albumenized plates a good rubbing around the edges, leaving a thin coating of the wax on them. I now prepared one of them precisely as before, and, behold, I obtained a negative clear and spotless. I treat my ferrotype plates the same way, and find no more trouble.

If you think this worth communicating to the fraternity, do so by all means. I have profited so much by the wrinkles and dodges in your journal, that I would be most happy to see some one else profit by this little dodge, which I never before saw in print.

Louis de Planque.

#### HOW IS BUSINESS?

I have read with pleasure the numerous replies in September number, Philadelphia Photographer, as to your "How is Business?" While all have some good points, yet none of them seem to aim at or hit the point of how to improve business, or how to make ours a paying business. While we should all use our best endeavors to please our customers, and do the best possible work in all respects, artistically and photographically, yet, as the "laborer is worthy of his hire," we should in some way come to a general understanding as to the best means of making our business pay. Friend Allen hits the keynote to our great obstacle on that point, viz.: the notion that many people have got into their heads, that they must always "sit over;" no matter how good the first proofs may be, they seem not to be satisfied unless they consume as much of your time and material in sittings and proofs as they pay you for the finished pictures. This custom of numerous sittings, and finishing two or more of them, seems to "be run in the ground" in Boston, as well as in some other leading cities. It is almost a daily occurrence that when proofs have been made from two or more negatives, that ladies say, "I will take part from each negative." I reply, "If we finish more than one negative, my charge will be two dollars additional for each negative finished." They reply, "Oh, then I will take from only one; but in Boston So-and-So always finish two negatives for one dozen pictures." My reply is: "I will be very happy to finish you all the negatives you are willing to pay for." You would not expect your tailor or dressmaker to make you a number of suits for you to select only one at the same price that they would make

In brief, we should make people understand that the main expense in making photographs is in getting up the negative, and that it costs us money, in time and material, to make sittings. We are desirous to please our customers with the best work we can produce. We cannot waste time and material for useless sittings unless we are paid for it. The present plan of show-

ing proofs is the moth that is eating us up, our living and profits. The system should be abandoned; we should, like other honorable business men, stand on our honor and integrity, and say to people: "It is our aim and interest to make you the best possible picture for the least money we can; leave it with me. I know from experience and careful study and observation what will please your friends better than you can. For the foundation of such a picture, I will make you the requisite negative at my regular price; I will make you as many other sittings as you choose to pay for." Insist in all cases where the parties are not known as honorable and prompt pay for your pay at the time the negative is made. Charge a fair profit for making the negative, say \$2.00 for card, and the balance for the prints. My present charge for cards is \$3.00 for half dozen, \$4.00 for one dozen, and \$2.00 for duplicate dozens from same negative; cabinet, \$8.00 per dozen, \$6.00 for half dozen, and \$4.00 for duplicate dozens. Extra sittings for any whim of the sitter, and no fault of yours, \$1.00 for each extra sitting, and \$1.00 for working up the negative ready to print from. By adopting some such universal plan as the above, we can command our own and the respect of our customers, and be able to lay by a dollar "for a rainy day."

> A. HESLER, Evanstown, Ill.

#### "ROUGHING IT;"

OR, A WEEK'S RAMBLE WITH CAMERA AND TRIPOD.

BY W. H. TIPTON,

(Continued from page 343.)

THE photographer that, aside from the managing and thinking, does a goodly share of the actual work in his establishment, let it be in any or all of the branches of the profession, is not only subjected to the vexations and sometimes unbearable treatment of some classes of sitters, and the annoyance of reckless or incompetent employés, but is confined to the impure air of the gallery, inhaling the fumes of the chemicals from morning to night, failing to get sufficient

exercise in the open air to keep body and mind in a healthy condition. If this be persisted in week after week, and month after month, without rest or recreation, the result may be, in fact will be, a physical wreck. The laws of nature cannot be violated with impunity; a change or diversion is absolutely necessary. Yet while these very photographers are the ones to whom a sojourn of a few weeks at a healthy wateringplace, or among the exhibitanting resorts of our mountains, would be most beneficial, they can, generally speaking, illy afford the expense. To all such we would suggest such a trip as we are now endeavoring to describe, and if you would receive the most benefit physically and financially, rough it.

Sunday soldiering will do when starting out with no other object in view than spending money, killing time, and taking things easy in general, but when you mean business, and the necessity of the case demands it, you must come down to actual service. You should go prepared for hard work, and be sure that you do plenty of it. We believe there is virtue in persistence, and always persist until the result is satisfactory, but have little sympathy, and not one scintilla of admiration for those photographic drones who spend a day or two for a good negative. The photographer who lacks the ready discernment and ability to such a great extent, in our opinion has doubtless missed his calling, and would be wise in turning his attention to something else. Time is a priceless gift from God to humanity, and in these times that "try men's souls," necessity demands that we should weigh well not only its minutes but its seconds. Men who secure happy results by such useless waste of time are frequently elevated as "copy" for the struggling novice, and pages devoted to eulogizing their productions. This is all wrong; better give a man credit for the facility with which he executes his work, than for the amount of time he consumes. Such waste of time is only excusable in the beginner, and we should not elevate such evidences of incompetency as the criterion for the future standard-bearers of the profession. In our formulæ nothing new or remarkable will be found, and though it be an oft-repeated story we give it here in full, as

our paper might be considered incomplete without it.

Camera Box.—For outdoor stereographs we use a swing-back Semendinger box, made to our order in 1868. It has a separate front for each pair of lenses, is neat and durable, and has good, strong holders, a luxury not found with the high-priced boxes procurable now.

Plates.—French negative glass after cutting to proper size, filing the edges, and carefully dusting off the particles, is immersed over night in a strong solution of sal soda dissolved in soft water, or in a solution of concentrated lye; then as each glass is well rubbed and washed under the tap, it is placed in a solution of about two ounces nitric acid to one quart of water for a few hours, when it is again well washed and polished with cotton flannel, the flannel having been previously well washed without soap. We have no occasion for albumenizing.

Collodion.—No. 1 regular portrait collodion for groups, live stock, and all purposes where a short exposure is desirable. Made as follows:

Ether, . . . . . 8 ounces.

Alcohol, . . . . 8 "

Iodide of Ammonium,

Bromide of Potassium,

Parys' Cotton, . . 6 to 8 grs. to oz.

Dissolve bromide of potassium in the smallest possible quantity of pure water.

No. 2 same as No. 1 in all respects, except but ten grains of bromide are used instead of forty. This, of course, works slow. From a mixture of these a collodion of any desired intensity can be produced suited for almost any subject. About equal quantities of each will be found best suited for views generally. Iodide and bromide of cadmium equivalent to above proportions may be used instead of above if collodion is to be kept beyond a few weeks in warm weather. One drop of ammonia added to about one-half a pound of collodion after it has become quite red will bring it back to good working condition in twenty-four hours. It is preferable for field use to have collodion in small bottles, so that it is necessary to coat but few plates from each.

Negative Bath.—Nitrate of silver, forty

grains to an ounce of water, slightly acidified with C. P. nitric acid.

#### Developer.

Sulphate of Iron, . . . 1 ounce.

Water, . . . . . 16 ounces.

Acetic Acid, No. 8, . . . 5 "

This developer is varied by adding soft water and acetic acid, as the nature of the case may require. Only use as above for very short exposures.

Redeveloping or after-intensification is unnecessary with collodion No. 2, or any mixture of 1 and 2, and very seldom for No. 1.

Just here let me relate the only blunder that occurred during our jaunt. At about six o'clock in the evening of the second day out, after bath and hyposulphate had been filtered back for the day, we were called upon to photograph the interior decorations of a church. As we still had a drive of fifteen miles to make that night, and the declining light required prompt action, this, together with the fact that the job was too fat to be missed, we were consequently a little excited. A plate was prepared and exposed, the resulting negative being fine in every respect except lacking sufficient intensity for the finest effect. It was carefully placed on the dipper, and immersed in what we supposed was the fixing-bath, and allowed to remain until another exposure was made. Upon withdrawing it from the bath, to our astonishment it was not fixed, but discolored to a purplish-brown. An investigation revealed the fact that a portion of developer had been poured into the hypo tub, which with the several ounces of hypo charged with silver that had been left in it (there being more solution than the bottle would hold) produced this peculiar effect. This was the only negative intensified, and none were redeveloped.

Varnish—For formulæ, see page 41, Mosaics, 1875, or page 300, Philadelphia Photographer, October, 1877.

Such a dark-closet as we described last month can be made during leisure hours by any photographer, and the outlay in cash need not exceed a few dollars. It seems as effective as it is possible to make it; six or seven minutes' time is all that is necessary (from the time you stop until you start) to have a good negative. By bolting it on a go-cart running gear, it is just the thing for views around town, and is always ready, only a few moments being required to fasten it in place. If the operator is shrewd enough to map out a course where views of general interest are not too far apart, a trip similar to ours may be made profitable financially as well as physically.

One great source of inconvenience to the traveller in a country with which he is unfamiliar is the absence of guide-boards. We did not have the benefit of one from the time we left the old Keystone State until we re-entered it. Driving along one day, indignantly discussing the matter, the writer concluded that their absence could only be accounted for by the fact that the residents themselves were unacquainted with the distance from one point to another, and consequently were unable to mark the boards. "But how can you expect them," queried my assistant, "to know anything about it without having the guide-boards?" Just here we thought best to let the matter drop.

After driving one evening fully the distance that the landlord at our last hotel had informed us it was to our next stoppingplace, we came up with a "culled" individual, and inquired of him how far it was to S-. After removing his dilapidated panama, and stirring up his languid faculties with a few digs of his bony fingers, he replied, "Well, boss, spect I reckon I guess it's a right smart bit." "Well, uncle, what do you call a right smart bit?" "About as nigh as I can calc'late its nigh to two mile." In justice to the darkey we would add that he was only about five miles from being right, the distance being seven miles, as near as we could determine. When travelling on the turnpike all inconvenience in this direction is avoided, the distance in no instance being more from one gate to another than the keepers claim. The toll charges are usually very reasonable, too, seldom exceeding car fare, namely, two cents per mile.

Although the negroes caused us some inconvenience and disappointment by their generally incorrect information, they furnished sufficient sport and amusement to

counterbalance it all. I will mention but one instance, which occurred the last day. Jogging along homeward bound we met a representative of the race driving a pair of very large and very lazy oxen yoked to a cart. When asked to stop, and allow us to photograph him with Buck and Berry, he readily consented, and when allowed a glimpse of the resulting negative he seemed delighted, but feared his eyes had been injured by looking into the camera during the exposure, remarking that "Dem acids must be powerful strong to 'fect a feller's eyes so." This was the last negative made, and ended a successful week's work, during which time about one hundred good negatives were made, with not one hour's bad weather (except occasionally a slight fog or haze in the vicinity of the rivers) to delay our progress. We returned home greatly benefited in health, with a considerable addition to our stock of knowledge, having gathered many things by the wayside that may prove valuable in the future.

# PHOTOGRAPHIC PROCESS GIVING HALF TONES.

[Translated for the Philadelphia Photographer.]

Paper Presented to the Belgian Association of Photography.

(Continued from page 329.)

So as to obviate this cause of imperfection, I have substituted for the system of granulations by means of resin and powder, which I look upon as inefficient and troublesome, the direct granulation produced by the sensitized coating itself to which has been added an opaque substance in powder, attacking neither the bichromate of potash, the gelatin, nor the perchloride of iron. Among other substances, I have used the sesquioxide of iron and calcined red clay (piece of pottery).

Work executed in these conditions gives more softness and finish, and also more complete details than those obtained by means of resins.

Whilst this substance acts as a complete preserver, in the intense blacks, as well as in the more transparent half-tones of the positive cliché, the powder incorporated with the gelatin, by an effect of light easy to understand, produces on the plate a shadow composed, for each opaque particle, of a darker nucleus, easily permeated by the mordant and surrounded by a kind of penumbra more or less pervious to the perchloride of iron, which softens the half tones in a much more efficacious manner than the powdered resin, adhering to the metal by a former operation, independently of the formation of the image on the sensitized film.

I must admit, however, that this modification of the original process, which I regard as advantageous, has not yet been absolutely sanctioned by long practice, as up to the present time but a limited number of experiments have been made; which, although to me apparently conclusive, require to be continued and corroborated by new results.

It is possible that engravings thus obtained, having very often the same fault, which results from the manner of operating described above, should lack vigor of tone; but if we consider that the operator can select the granulation the most suitable for the work that he wishes to reproduce, and that he can make use of a suitable negative in which the vigor of the contrasts shall compensate for the deficiency of the contrasts which result from the nature of the process, not only this defect may in a great measure be removed, but besides great advantage will be found in this process, if we consider it simply as a preliminary operation necessary for the making of typographic engraving with half tones.

It suffices for this, that the engraving made on copper, although but little prominent, should have the half tones very evident and perfectly well defined; an excessively deep engraving for this work would be more injurious than useful. It is necessary that the drawing should be harmonious, and the shadows should be formed by an exceedingly fine granulation, but visible and very sensitive.

The specimen that accompanies this communication was made according to the process we have just described. A negative cliché was made of the bust of the great Portuguese painter, Sequeira, moulded in plaster; from a wet collodion negative cliché

was made a dry collodion positive cliché. The drawing on the copper-plate which has served as an intermedium for the final operation, was obtained by means of a mixture of gelatin and bichromate of ammonia dissolved in water, to which red chalk in powder has been added (sensitized coating), and a solution of perchloride of iron (mordant), which has produced the engraving properly so called.

The operation having reached this point, and the cliché engraved on the copper being completed, it is easy to understand what remains to be done to obtain on a typographic cliché the reproduction of this same plate. It suffices for this to carefully make an impression of the engraving on transfer paper, which serves to carry the primitive drawing to the zinc. The drawing engraved upon this metal by the chemical engraving process will give a cliché, which may be used later in the printing press.

The success of this process depends upon the skill of the operators. This, in my opinion, is its greatest difficulty; not because its operations are difficult, but because it is necessary to use them with tact and intelligence.

It is probable that my experiments in this direction will again be interfered with by my official work, which absorbs my time; if, however, the description that I have here given of them can cause the desire of profitable inquiry, I will consider myself amply rewarded by the thought that this communication, which I never would have made without your flattering and cordial request, shall not have been entirely useless.

Jose Julio Rodrigues.

—Bulletin de l'Association Belge.

#### SCATTERED THOUGHTS.

BY F. M. SPENCER.

SIXTH PAPER.

Many photographers who are only amateurs out of doors, under the broad skylight professional view photographers delight in, are often put to their trumps for water; of course the "professional tramp" is up to the dodges, and although what I am going to state is not new, it may be valuable to some who may take the trouble to read this

to know that a one-pound ether bottle will hold enough water for a big day's work in the field. Take 16 ounces of water, 3 ounces glycerin, and 2 ounces acetic acid, and mix; it will not quite fill the bottle, but will be enough. When about to develop a plate, partly fill a two-ounce wide-mouth bottle with the glycerin solution, and when the development with iron has been completed, drain off the surplus, and pour on enough of the glycerin solution to flow the plate in the same manner as with collodion, and drain off, and repeat with a little fresh solution, when the negative may be exposed to full sunlight without any change happening to it; put the negative in a grooved box provided for the purpose, and let it remain until you get home, -a day or two, if you like,-when you can wash off the glycerin, strengthen and "fix,"—i. e. clear up—as usual. If you have never tried it, you will be surprised to see how little glycerin solution you need use.

It reminds me of my army experience. During our stay in winter quarters we would accumulate clothing, blankets, dishes, camp kettles, bedding, hats, caps, and a multitude of dress-parade geegaws; but when the orders came, "On to Richmond" again, you ought to see us strip for active service, REAL SERVICE, -- a pair of pants, a blouse, a cap, two shirts, two pairs of stockings, one of shoes, a gum blanket, a canteen and haversack, and arms. Recruits then, as now in field photography, started out "doubly weighed down." I find that for active service in the field a dark-box of some kind, a tight bath, one bottle each of collodion, developer, and glycerin solution, and a supply of good plates, with a camera and tripod, is all the outfit needed; leave the rest to the tender mercy of the bummers in camp.

That A. M. C.'s trouble comes from a fault in his plates, I am inclined to believe, both from experience and from the fact that intervals occur of clean plates without any change in chemicals.

I offer the following dodge as something new. Take one of those pouring bottles that are made to advertise Phenix plates, that goes guggle, guggle, when about half empty, and fit loosely into the flanged bottom a piece of fine sponge,—it will dry up its babble and absorb the sediment. For collodion wash the shell out of the sponge with muriatic acid. The idea is *free*, if you do not wait for the pig-men-ted glue man to take out a patent.

If photographers who complain of cheap prices would refuse to take short-time apprentices, and give incompetent apprentices an early furlough, it would go a long way towards breaking up the evil. These fellows go out into suburbs, small towns and byplace cross-roads, in portable galleries, with portable traps and portable brains demoralizing trade. If a customer complains of your prices, tell him that you charge a little margin to cover wear upon investment, and a little for use of brains, and some for cost of material and labor, so that you can continue in business when your stock on hand is worn out,-all but the brains; the charge for their use, tell him, you consider is legitimately due you as profit. If he does not see the point, show him some pictures, tickle his vanity, do anything honorable to get an order out of him before he goes out, but do not let him beat you down on prices a cent; it does not pay. You will have to go through the same performance with all his neighbors.

There is one nuisance for which I see but one cure, that is, the cheap copying houses. Let every photographer work up his own neighborhood thoroughly, until it is so thoroughly overdone that the copying-house folks have to give it up; they sap us of more than half of the orders we should get in life-sittings. Spades and shovels, counterdigging is the only practical defence I can see to defeat the tribe of sappers and miners, styling themselves the great original national copying house.

"Aut-a-type to fade so soon?" Isn't that a bit wicked, Mr. Webster? It is only like some of the paintings by the old masters, only a bit mellowed; just wait until it is as old, perhaps some enthusiastic Briton will cross the stormy seas to revel in its ravishing tones half a score of centuries hence, perhaps not; perhaps some one had better go paste it on the pyramids, and glorify it with antiquity,—that at least would have the merit of a new transfer process.

There seems to be considerable talk nowadays about putting prices down; it is an expedient that I am convinced will not pay as a rule. It is easier to get down than up, and does not seem to galvanize trade in any ratio commensurate with the sacrifice, for the nearer we get to cost of production the more must be done to realize a living profit, and I do not believe any of us are anxious to work any harder than we have been doing for our money.

No good photographer is overpaid. The nearer we get down to cheap John prices, the closer will the public associate us with a class now too large, who are disgracing a profession they have no fitness to follow. Last spring I advanced prices, and I have had no reason to regret it. I believe my business is better than any of my cheaper competitors; but every man ought to be his own judge as to the standard of prices he can maintain. Expenses are greater in some localities than in others, and in some the people are better able to pay high prices than in others. I do know that in many parts of the country five and six dollars per dozen for cards would amount to prohibition; the people have never paid it, and in these dull times would not, and generally could not, pay it; but for a photographer to throw away the best prices he can get is sheer madness-it does not create a demand, it hurts trade. Once begin reducing, and the people will begin to wait for the next reduction, and the next, instead of going in a rush for pictures. Every trade is demoralized in that way, ours already enough so, without committing the most fatal act of all. Let photographers heroically "hold the fort" until other branches of business revive, and we shall see good times once more. There is a rich mine for pictures accumulating, the population of the country is increasing in numbers and growing in size, and a harvest awaits him who preserves his reputation, and is awake for business when the flow of trade sets in.

#### CARBON PRINTS.

I HAVE heard much about carbon; have heard some say that silver prints WILL fade—c-a-r-b-o-n WILL NOT. I have wondered

if those photographers knew they were injuring themselves in the eyes of sensible people. How do they know carbon prints will not fade? The assertion is only supposition, when, in fact, they do not know. I have silver prints that have been made for fifteen years, and to all appearances just as good as ever. I have also some ferrotypes I made eighteen years ago that are just as good as the day they were made.

We all know that gelatin is affected by the weather, and I have the first enamelled picture (for they are gelatin finish) but checked, and was full of fine cracks in time. True, they look nice when first made, but I think they will not wear. Besides, I never knew a patent in my life (that was peddled out as they do the carbon process) that was of any account; and when I see one selling patents, I just set him down at once as a travelling humbug.

My worthy competitor here invested in the carbon swindle some months ago, but I have never heard of his making a single picture. I did hear of him, however, rushing frantically around town, the next day after he returned, showing his deed for the exclusive RIGHT to make carbon pictures, and how he had the world (this part of it) by the tail. But of late I never hear him say carbon. I think it is about the same as the celebrated souvenir, and will play out about the same. I think it is only gotten up by a few to grow rich, if possible, from the photographers of our country.

We have entirely too many travelling about peddling this, that, and the other, and too many photographers are always ready to bite at the bait. And after they have, they applaud it in order that others may also bite; simply because they want to see others equally swindled with themselves, when they should come out and condemn it at once. And our journals are too apt to recommend things for a few dollars that often prove detrimental to the craft.

One thing I am glad to see. Our editor of the *Philadelphia Photographer* has of late been giving us the American weights and measures when quoting formulæ from a foreign country, which, I think, is a great kindness to many. As we have no way of weighing, only first to hunt up a table, and

then reduce them to our standard, I think all American publishers should give us those formulæ in our own terms, as it helps many to use them who could not otherwise.

W. B. C.

#### An Unfailing Method of Preventing Air-Bubbles in Albumen Paper.

[Translated for the Philadelphia Photographer.]

A first-class firm manufacturing albumen paper asserts that the water used for the different baths is the essential cause of the appearance of bubbles in the albumen paper, and that they have invented a method to prevent the appearance of airbubbles in the paper entirely. When this is the fact, there would have been done a great step to remove all calamities in this respect, and we could not thank enough the firm for publishing the following:

# Unfailing Method Against the Appearance of Bubbles.

"After the pictures are taken out of the toning bath, they are several times to be washed with clean water, and to be placed, if possible, singly in a water bath, to which is added three to five grammes of pure muriatic acid to every litre of water. In this bath, keeping it constantly in motion, we let the pictures float for two or three minutes. Then again we wash them out in clean water for two to four minutes in order to remove the muriatic acid partially. In warm weather this requires a longer time than in cool weather. After this we put the pictures in the hypo bath.

Should the finished copies show a slightly yellow tone, which very seldom occurs, we have to draw them, after the muriatic acid bath, through a solution of five grammes of ammonia in one litre of water for about one to three seconds, washing out once, and going on with the fixation. In this manner any change of tone is impossible."—Photo. Notizen.

#### A TRIO OF SUGGESTIONS.

BY W. H. TIPTON.

OUTSIDE of the absolutely necessary paraphernalia of a photograph gallery, I would

suggest as one of the most useful a good, reliable amateur printing press, with from six to a dozen, or even more, small fonts of various size and styles of types. Woodcuts and electrotypes are now made very cheaply from any design furnished. Photographers can have special designs of their own always ready for printing the ends of their stereo views, backs of card-mounts, etc., in just as neat a manner as they can be executed by most practical printers, if he takes proper care. For printing envelopes, business cards, circulars, and the thousand and one things of the sort required about the gallery, it will save itself over and over again every year. A "Novelty," in use in our gallery since 1873, has not cost a penny for repairs, and still works like a charm. About twenty fonts of type, and as many electrotypes, have accumulated. In nearly every establishment one can be found who will delight to work it.

Another very essential article, not only in the gallery but any business place, is the letter copying press, or one of the various copying books that require no press, several of which from practical experience I know to do their work. Much inconvenience and annoyance is avoided by preserving copies of all letters and orders, and not unfrequently cash is saved and made.

Lastly, and to complete the trio, I would suggest, as almost indispensable, a good clothes-wringer, not to wring your pictures through ten or fifteen minutes after they come from the hypo, as I have seen recommended, for that is all bosh, but after they are thoroughly washed. Take from the water one at a time, and place on top of others till you have three or four dozen, put between two pieces of cardboard, or, better still, between one piece folded, pass through the wringer, and mount in that condition if prints have been cut before toning; if not, hang up or spread out to dry. Pictures wrung out, dry in half the usual time. And now, perhaps, it would be well enough to "suggest" that the writer has no interest in the sale of any of these articles, but does have an interest in the welfare of his fellow-craftsmen, and is always ready to contribute anything that may be of value to them.

#### OUR GOLD MEDAL PRIZE OFFER.

By referring to page 30 of our current volume, it will be seen that we have already offered to our patrons a gold medal for the best six negatives sent us by January 20th, 1878, of a size and figure appropriate for the embellishment of our magazine.

We have received notice from several that they will compete, and we trust that a great many more are making ready to do so.

We desire that the conditions of the offer be read over carefully by all those intending to compete, so that there may be no misunderstanding in the future. Moreover, it is necessary that the conditions shall be strictly followed in every detail. We shall have but one more opportunity to urge this matter upon our readers, and we hope it will not need much more urging to secure a hearty competition. Our desire is not only to promote photographic practice, but also to secure popular pictures and excellent studies for our readers.

#### MOSAICS FOR 1878.

In a few days after this meets the eye of the reader *Photographic Mosaics* for 1878 will be ready. We feel some hesitancy in saying very much about our own bantling, but inasmuch as a major portion of the articles are written by practical, working photographers, those who very rarely write anything at any other time, we are free to say that it is our opinion that *Mosaics* for 1878 is more full of precious gems than any of its predecessors.

By referring to our advertisement, a list of the articles will be found, and with such a tempting dish as that before them, we think photographers will not be slow in getting possession of copies as soon as possible.

As an example of the style of the articles, we have chosen one by Mr. W. H. Sherman, of Milwaukee, Wis., on "How to Restore Exposed Plates," which we think will commend itself as a most acceptable and useful paper to all of our readers. When we receive such papers as this, we feel regret that such able men as Mr. Sherman do not write more for the photographic press than they do.

HOW TO RESTORE EXPOSED PLATES.

"It is generally supposed that when a sensitive plate has been once exposed to the light, either in or out of the camera, its usefulness as a sensitive plate is at an end. Either it must be developed and serve in its finished capacity as negative or positive, or be set aside as a failure, to be afterwards treated to the routine of preparation appropriate to second-hand glass before it is again ready for the camera. In ordinary studio work, so much of this kind of drudgery must needs be done, that it occasions but little compunction to see a plate that has been most carefully cleaned, albumenized, collodionized, and bathed at some cost of time, labor, and chemicals, tossed into the lye-tub or other purgatorial receptacle wherein outcast plates await the renovating offices of the cleaner. Of course, in all developed failures, there is practically (though as I shall presently show not absolutely) no help for this repeated preparation; but when it is known before developing that a failure has been made, as, for instance, in the case of a child moving, the plate may be restored or put back again into working order without removing the sensitive film, so that precisely as good a negative or positive may be made upon it as if it were for the first time fresh from the bath.

"With dry plates especially, the ability to restore and use them, when otherwise they would be useless, is not unfrequently a matter of great convenience and satisfaction. With the exercise of proper care, it is true that a sensitive plate will not be exposed to actinic light until it is in the focus of a lens, with the luminous image upon it. Dry plates ought never to be carelessly or accidentally exposed. There is no denying this; but, nevertheless, neither carelessness nor accidents have been entirely eliminated from photography or photographers. Dry plates, during their entire history, have been remarkable for a trick which they have of getting uncovered. The last person who took one from the box shut the box and locked it; but the box is found open, the door into the room is open, and the plates are ruined, every one. They are worth saving. How is it to be done?

"Restorative.—Dissolve 160 grains of bromide of potassium in 8 fluid ounces of water, and add 2 fluid drachms of nitric acid.

"After rinsing the plate under the tap to remove the preservative (if a dry plate), or the free nitrate of silver (if wet), immerse it in the restorative in a pan of suitable size. few minutes will suffice to undo the work of the light, the time required being proportionate to the amount of exposure. care necessary as to the time the plate should be in the solution is that it must be long enough. For a fully exposed negative three to five minutes will accomplish the desired object. I am in the habit of covering the pan, and leaving it until the next convenient opportunity for removing the plate. sitting may be made, or one may go to dinner meanwhile. On taking the plate from the solution, rinse again as before; flow again with the preservative (if a dry plate), and place in the drying-box, where it may dry spontaneously; when dry it will be ready for further use, and as before stated, will be found to be in every respect as good as new. For wet plates the treatment is to be the same, with the exception that instead of reflowing with the preservative they must be redipped in the nitrate bath. It need hardly be said that the water used for rinsing, as above mentioned, should be nearly free of impurities. That which I use is from Lake Michigan, and answers the purpose well.

"A plate may be restored after being developed, and another negative or positive taken upon it. Furthermore, the operation may be repeated a number of times, the same collodion film and the same silver being used in each case; but by the wet process, the plate will have more silver after being restored than before. After a plate has been exposed in the camera and developed as usual, immerse in the restorative, to which add for an ordinary bromo-iodized plate an equivalent of iodide of potassium, two hundred and twenty-three grains, and two fluid drachms more of nitric acid. Let the plate remain in this solution until all trace of the developed image has disappeared, which may require twenty-four to thirty-six hours. The plate will now have the appearance of one just taken from the bath. After rinsing to remove the acid and soluble haloids, finish

as before directed for wet or dry plates; if for a wet plate, it may be flowed with a weak solution of bicarbonate of soda after rinsing off excess of acid, followed by another rinse to remove the soda before redipping in the nitrate bath; if for a dry plate, carbonate of ammonia or soda may be used to assist in removal of the acid from the plate. When a wet plate is developed, a portion of silver from the free nitrate is reduced upon the parts of the sensitive coating which have been impressed by the luminous rays. In the process of restoring, this additional silver is redissolved by the nitric acid and converted at once into bromo-iodide of silver, so that the plate is richer in silver at the second exposure than at the first, and still more so at the third than at the second, and so on until the film would undoubtedly be broken up by excess of the silver compound.

"As might be expected, instead of the bromide of potassium, common salt may be used as a substitute. I am not quite prepared to say that the plates treated with the latter are not quite as sensitive as those with the bromide, but such seems to be the case. I have experimented with it enough to find that just as perfect results can be obtained on a plate exposed and restored by it and the acid as with fresh plates. The trouble of restoring a plate is hardly worth mentioning. Have a pan, say 7 x 9 or 8 x 10 inches in size on a shelf in the dark-room, containing the acid-salt solution. This should be kept covered or in a stoppered bottle when not in use.

"When a sitter has moved, and you are certain of a failure, remove the plate from the holder, rinse, place it in the pan (in the solution, of course), and cover it by inverting another and a larger pan over it. Proceed with your sittings. Afterwards, when convenient, make ready to do some job of copying, and use the plate from the restorative as above directed. If successful, you will have a clean, brilliant negative on a plate which ordinarily would have been useless until again cleaned and otherwise prepared. For dry plates use the bromide restorative."

By referring to the list of contents already mentioned, it will be seen that almost every conceivable subject which pertains to photographic art, photographic manipulation, and photographic objects is considered.

Some articles are exceedingly spicy and intended to correct some evils which we find growing among employers, employés, stock-dealers, manufacturers of photographic requirements, etc., etc.

There is a little something for everybody, making a most diversified set of articles, such as will be found precious and valuable to any practical photographic worker.

144 pages of closely crowded, excellent matter, for 50 cents, will be sent postpaid to any address on receipt of price.

#### SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Stated meeting held Thursday evening, November 1st, 1877, the President in the chair.

The minutes of the last meeting were read and approved.

The Treasurer made his annual report.

The following named gentlemen were elected to serve as officers for the ensuing year: President, Ellerslie Wallace, Jr.; Vice-Presidents, John Carbutt and Joseph W. Bates; Recording Secretary, D. A. Partridge; Corresponding Secretary, Dr. Carl Seiler; Treasurer, S. Fisher Corlies.

The new President, upon taking the chair, appointed as Room Committee Messrs. Dixon, Young, and Hewitt; Revising Committee, Messrs. Hewitt, S. Sartain, and Partridge.

Mr. Samuel M. Fox was nominated for membership.

Mr. Young exhibited a negative which had been thinned down with an acid solution of chloride of gold, and stated that an advantage of this method was that an alkaline developer could be used for strengthening afterwards, if necessary.

An album containing a large number of very handsome prints from dry-plate negatives, made by the President during his recent trip in Europe, was shown, and very much admired.

The President spoke in favorable terms of the practice of drying washed emulsion plates by heat, as communicated to him by Mr. Woodbury when in London. He found

that by doing this he was not troubled with transparent spots.

Mr. Young said that he had found drying by heat of value. Out of forty-six plates taken to Pike County last spring, only two showed any tendency to spots.

Mr. Young presented a number of prints from washed emulsion negatives made at the Water Gap and vicinity, which were very successful.

Messrs. Bates and Pancoast exhibited some very good work, also on washed emulsion.

Some exquisite reproductions in fatty ink were shown by Mr. Rau, the work of Mr. Julius Krüger, of Berlin.

On motion, adjourned.

D. Anson Partridge, Recording Secretary.

THE regular stated meeting of the Pennsylvania Photographic Association was held Tuesday evening, November 13th, 1877, at 1427 Ridge Avenue, President H. S. Keller in the chair.

The minutes of the last meeting were read and approved.

There being no other business before the meeting, Mr. McCollin made a few remarks on the making of negatives without the use of a silver bath, and said that, in his opinion, the day was not far distant when silver baths would be laid aside for the new substitute, which, he stated, was a silver collodion. He showed some very fine view negatives which he had made with the above, the exposure being less than three minutes. He also showed some very fine large photographs, the negatives of which were reproduced by the carbon process.

Mr. J. R. Clemons showed a number of old prints, some made as far back as 1855, which have not faded; they are perfectly white, although some of the card mounts are quite yellow, showing that the prints have kept better than the white mount. He then read an article on the "Cause of Fading of Photographs," written for the Mosaics.

On motion of Mr. McCollin, the proceedings of the meeting were ordered to be published in the *British Journal of Photography*.

On motion, adjourned.

THOMAS T. MAHAN, Secretary pro tem.

#### A DREADFUL DOOM AHEAD.

WE learn from one of the local papers that the St. Louis Society for the Promotion and Protection of the Photographic Artand Lambertypy has recently been occupied, night and day, investigating a boy who has been discovered with an extra pair of hands instead of the usual feet. We are not told as to what part of St. Louis this boy was discovered in, but as to the fact it must be so, because it is in the papers.

The boy, of course, has been photographed, and the distinguished artist who made his pictures avers that in every other respect he is like other boys, but that his extra pair of hands enable him to cause more than four times the trouble which an ordinary child would cause by the motion of his hands.

And this is the way in which the matter came before the aforesaid distinguished scientific society. We who are photographers know more perhaps of the hideous monsters which are brought into the world than any other class of people, except physicians and hotel clerks. Not only do we see them in our reception-rooms and under our skylights every day, but they are brought to us for the purposes of science continually; and it is every photographer's duty to follow the example of this St. Louis photographer, and report all such monstrosities to headquarters. If Dame Nature intends to spring upon us a race of four-handed people, thus upsetting the theories of Darwin, Huxley, and Tyndall, and introducing a new theory of development, it is perfectly proper, although it may not be within the province of the St. Louis society, to investigate the matter, and to do all it can to suppress this coming race, and nip it in the bud. We do not say that the photographer mentioned should have given this child a dose of cyanide, but we do say that if any fair means can be used that the thing ought to be stopped.

Just think of a child, who after having grown up with these extra appendages, coming to our studios, and while one pair of hands are folded complacently over its peaceful breast, the other pair are at work either upsetting the silver solution or making way with your better accessories, or in doing all sorts of destructive mischief generally. Or think of a photographic editor growing up and becoming noted, who with one pair of hands may write all sorts of photographic twaddle, and with the other all sorts of libellous articles which will develop his own shallowness and lack of fore-Or think of a photographer who with one pair of hands will run his regular business, and when visited by a neighbor who has less knowledge than himself, will with the one pair of hands show all his little dodges, secrets, etc., while with the other pair he strives to rob his beguiled neighbor, by manipulating before him sundry other processes which he knows but little about himself, or with which he has been stuck, striving to manufacture another victim.

Two pairs of hands are well enough, provided they be backed up by sufficient brains to keep them within control; but what a dreadful state of affairs if, as in the cases mentioned, the hands pull upon the brains in different directions, and deceive them so that they know not which way to work. We have evidence of this in the editor of the organ of the distinguished society named.

We are told that the good die young; let it be sincerely hoped therefore that all the little four-handed boys and girls who are born may be very good little boys and girls. If not, nature must be responsible for a great many spoiled plates.

We have often thought that the genus photographer represented the long missing link between mankind and something else, and that Mr. Huxley, Mr. Darwin, and others, had taken hold of the development theory by the wrong termination. They assert that from the monkey were developed successively the ape, man, and the scientific person, whereas we have always thought that since photographer shows, that the true sequence of development was first a man, then a photographer, then an ape, and finally a monkey.

This four-handed boy has upset our theories, and we appeal to the distinguished society already mentioned for help and sustenance. We have often seen the simile between the organs of the ape and the photographer, particularly in the element of

character called appropriativeness. We have frequently been forced to admire the very wonderful way in which one photographer who was a little more able than his neighbor would eagerly subscribe for a photographic magazine, and after reading its contents each month, make periodical tramps around the neighborhood among his more ignorant brethren and sell them as new such things as he had read in his magazine.

We have often, too, seen the elements of imitation develop in photographers, where they had by some quadruple-handed process or other, placed specimens taken from the *Philadelphia Photographer* upon their walls, and exhibited them as their own work.

We could instance many cases where the photographer resembles the ape, but comparisons are odious, and we do not pretend to say that photographers are any worse than any other class of human beings. In fact we believe they are better than many classes, and if they go wrong at all, or say wrong, or do wrong, that they are only like the little girl (and the gooseberry bush which Æsop, or somebody else as famous), tells of in one of his fables, who, when forbidden by her mother to eat of the fruit of the gooseberry bush, persisted in doing so, and when questioned by her mother why she did not say "Get thee behind me, Satan," she averred that she did say it, and Satan got behind her and pushed her right into the gooseberries. We presume this is the way in which most of the wrong is accomplished. What we are to do if the next generation grows up with four pairs of hands we cannot tell. We suppose if Mr. Darwin were asked the question by the St. Louis society, he would answer, "Thereby hangs a tale."

We can only see one hopeful side in all this, and that is when a good, honest, four-handed photographer becomes busy he can so arrange as to develop two plates at once, or coat them; or better still, he may be coating a plate with one pair of hands, while he manages the fixing and washing with the other. This would, of course, necessitate a modification of the present human body in shape, but that is of but little importance; with four equally useful hands, and brains sufficient to control them properly, we think

that is all that is sufficient. Of course, this is the hopeful side; but our sincerest hope is that the St. Louis society and its comical organ may be enabled to stamp out this dangerous race at once, and that the prospect of seeing our future scientific societies and the editors of our organs going about through the world and through life with four pairs of hands, may be dismissed at once, and the thing properly fixed before further development takes place.

# ON SAVING SILVER AND GOLD IN PRINTING.\*

BY ROBERT J. CHUTE.

In photographic printing the margin for saving or wasting is much larger than in the negative department, as the amount of silver remaining in the finished print is said to be less than ten per cent. of that used. It is, therefore, all the more important that every step of the process should be guarded, in order that the large surplus which necessarily enters into the work should be finally recovered and saved.

In making the baths, and in their after handling, the same precautions are necessary as with the baths for negatives. All filters should be preserved, as they are usually rich in silver, especially if they have been considerably used. And in this connection I may say that it is economy to use a filter as long as it works well; that is, it is not necessary to use a new one every time the bath is to be filtered. An old filter is rather to be preferred, so long as it remains whole and is not too much clogged.

In silvering paper the principal saving is in securing the drippings. A glass rod across the end of the silvering-dish, over which the paper is drawn as it is taken from the bath, saves the solution, and leaves much less on the paper to drain. This rod may be secured by a piece of twine to a screw-eye in the table at each end. The floor of the silvering-room should be covered with blotters or any absorbent papers, two or three thicknesses if necessary, to prevent any of the drippings reaching the floor. These papers should not be allowed to remain too

<sup>\*</sup> See article on "Saving Silver," page 290.

long, or be trodden upon too much, as they may become saturated and ground up under the feet, thereby causing a loss of the silver thus far saved. A box or barrel should be kept as a receptacle for all waste paper, such as blotters or scraps from the silvering-room, filters, etc.

A considerable economy may be practiced in the cutting of the paper, though this is important only in view of the prints being trimmed or not before toning. When they are trimmed before toning, the careful cutting of the paper is not of so much consequence; but where they are trimmed after toning, a large saving may be made in the silvered paper by masking the negatives; that is, make a cut-out a trifle larger than the print is to be cut, and place it on the negative in the proper position. It serves as a guide in securing in the print just the part of the negative desired, and permits the paper to be cut so that there is very little waste, for the silver in the paper that is trimmed off before toning is about as good as saved. A separate box or barrel should be kept to receive all these cuttings, as well as all spoiled prints and unused paper.

The first washings of the prints are to be carefully saved, and for this purpose a large tank should be provided. Some printers do their first washing in a good-sized tank with plenty of water, and save only the one washing, while others wash two or three times in a small quantity of water, and save each washing. The first is most in use I think, however, as it seems most practical, and secures about all the silver there is to be had in this part of the work.

After the washing has been run into the precipitating-tank, a saturated solution of salt should be added in the proportion of about one pint to three or four gallons of washing, and then the whole thoroughly stirred. When the tank is filled and the precipitate settled, the clear water should be drawn off by means of a faucet placed at sufficient height to place a bucket under. To have the prints wash easily and secure a ready precipitation of the silver, the softest water to be obtained should be used for the first washing.

The next and last operation in which silver may be saved is the fixing. And right

here I would say that the photographer whose work seldom shows a tendency to fading, is he who never uses a fixing-bath but once. When this healthful method is practiced every day the old hypo solution accumulates rapidly, and requires a good-sized vessel, according to the amount of work done. When the tub, tank, or whatever it may be, is about full, a solution of sulphuret of potash is added as long as it produces a thick, black precipitate; the whole is then well stirred. and allowed to settle, after which the clear part is drawn off as closely as it can be without disturbing the precipitate, and the work of filling up and precipitating gone through with again.

The toning process gives us the more precious metal-gold-to use and save; but its recovery is simple, and the method can be described in a few words. The old toningbaths may be poured into a large bottle or earthen pot, and when the vessel is full add a saturated solution of protosulphate of iron (the common sort, such as is sold as copperas, will answer), a little at a time, stirring the liquid well, till it ceases to produce a black precipitate, then let settle and decant. The toning-dish will, after being used for some time, become plated with gold; this may be removed with a mixture of nitric acid, three parts; hydrochloric acid, two parts; and after neutralizing with a solution of bicarbonate of soda, add to the other gold residues.

In saving these silver and gold wastes, the photographer must not expect too much, or try to extract the metals before there is enough deposited to make it an object to work them. Once in three months is probably often enough in most galleries to make a collection of the various residues, and then, by following the directions given in the June number of this journal, the photographer may proceed to reduce them himself, and have the satisfaction of knowing just what percentage he has been able to save.

Mr. Liesegang has now nearly ready for the press a work on Carbon Photography, which, without doubt, will be favorably received.

#### GIHON'S PHOTOGRAPHIC SCRAPS.

BY JOHN L. GIHON.

Introductory.

The various series of "Scraps" that will now be published are cullings from the leading European and American magazines issued during the last seventeen years. In 1860 I commenced to "grab" up all of the photographic literature I could secure. In a marvellously short time I found myself encumbered with a vast collection of pamphlets and serials, many pages of which were occupied by advertisements and matter that was comparatively useless to me. A bird of passage, like myself, cannot be encumbered with too great a load. In the practice of our profession, I could not dispense with my books, and 'yet I could not transport the bulk of them with me.

The idea then occurred, that it would be well to sacrifice some of the articles for the sake of retaining those which I esteemed of true value.

I procured for myself a huge "folio," composed of blank pages, armed myself with paste-pot and scissors, and then commenced a frightful onslaught upon the columns that had caused their author much scratching of the head and general mental perturbation.

Notwithstanding my determination to condense, I could not avoid collecting "squibs," and "et cæteras" relative to at least a thousand different subjects bearing upon our art.

Finally there dawned upon my mind a glimmer of reason—a happy thought—and with philanthropic intentions, I determined to give to my brethren the benefits of my labor. Loaded with my book, like a pack-saddled mule, I applied to several publishers for the reproduction of my work, and succeeded in dismaying them by the magnitude of the undertaking.

Crest-fallen, I subdued my aspirations for fame as a public benefactor, and again resorted to the weapons of an editor's workroom. This necessitated more vicious clipping with scissors, more use of the pastepot, and more condensation.

Monthly, for some time to come (if you are prompt in your remittances), you will enjoy the benefits of all of this scientific lore.

Dispensing with any further attempt at jocularity, I assure the subscribers to, and the readers of, the *Philadelphia Photographer*, that it is my intention to give them a number of "Scraps" that will prove instructive to some, entertaining to all, and useless to none.

In anticipation that a monument will be erected to me at some future date "in memoriam," I begin.

An attempt will therefore be made to assort the "Scraps," and bring together all of those that pertain to separate branches of photography. By this arrangement we will contribute a number of independent and distinct series. In the construction of the large book from which this is compiled, it was impossible to systematize to so great an extent.

Series No. 1.—The philosophy of the formation of "sun pictures" as explained by different authors.

Series No. 2.—The chemicals used in the various picture-making processes; their manufacture and their properties.

Series No. 3.—The combinations of these chemicals, known as baths, collodions, developers, emulsions, etc.

Series No. 4.—The instruments and varied apparatus used in all of the separate departments of photographic establishments.

Series No. 5.—The plans and construction of various styles of skylights.

Series No. 6.—The manipulation of the chemicals, and all that pertains to "darkroom" work.

Series No. 7.—Posing and lighting.

Series No. 8.—Printing, comprising items of information in relation to every class of work. Plain and albumen, porcelain and carbon work are all treated of in this series.

Series No. 9.—The mounting, finishing, and general final operations necessary to photographic prints.

Series No. 10.—The retouching of negatives; the tinting and coloring of photographs; the improvement of them in other ways.

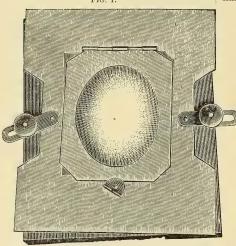
Series No. 11.—Dry-plate and other processes not generally understood.

Series No. 12.—Hints, wrinkles and dodges, and miscellaneous items.—A collection of essays, etc., all pertaining to photography, but difficult to classify.

#### BOYCE'S PATENT ADJUSTABLE VIGNETTE PLATES.

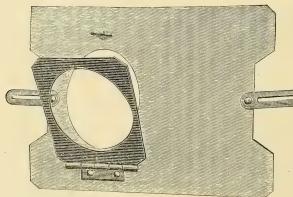
MR. W. Boyce has invented an auxiliary to the Waymouth Vignette Papers, which seems to us to be a most useful contrivance for those who understand and appreciate the necessity of printing their vignette papers properly.

The Waymouth Vignette Papers, as those Fig. 1.



who have tried them know, are among the most indispensable articles ever supplied for a printing-room, and no one ever once using them will give them up for any other contrivance. Of course, they can be pasted to

Fig. 2.



the printing-frame, and they are thus gen- | it the best of the kind yet introduced." erally used, but Mr. Boyce has supplied us

with a means of working with much more facility, and much more neatly. The construction of his apparatus is shown by the figures below. The first one shows a construction of the plate for using with single photographs where the head is nearly in the centre of the negative. No. 2 represents the same invention, made with the opening in the end for such negatives as have two images thereon. These vignette plates are made of brass, and will close the printing-

> frame, excluding all side-light, by means of pivoted arms with slot and set-screws. The perfect adjustment of the plate to the printing-frame is allowed, and its free movement over it to fix the vignette paper in its proper place on the negative, where it can be fastened with the set-screws and remain unmoved until the prints from the negative in the frame are all off. The hinged door allows the changing of the vignette papers without disturbing the plate.

> It is claimed that greater perfection and a more artistic vignette is executed by the use of these plates, and time and labor saved. Should the plates lay too near the negative for perfect blending,

they can be raised of the desired thickness upon the face of the printing-frame. With their finely-gradated lithograph designs mounted on the protecting sheets of the non-actinic paper, the Waymouth Vignette Papers are decidedly the best means of producing vignettes ever offered, and when used

with the Boyce plate, make the printing of vignettes simple and easy.

Mr. Bovce has received some excellent testimonials, among which is one from Mr. Henry Rocher, the celebrated Chicago photographer, who says: "It needs but a very short time for a printer to get perfeetly familiar with the use of this plate, and as it facilitates printing and saves considerable time, I think

The plates and the papers are both sold by

Mr. Charles W. Stevens, 158 State Street, Chicago, and by all dealers.

#### THE BITER BIT.

Some time ago Mr. C. C. Cook, one of our subscribers at Van Buren, Arkansas, was waited upon by a certain Mr. P. T. Devaney, for the purpose of obtaining a half dozen photographs of his sublime visage. Mr. Cook, believing Mr. Devaney to be a gentleman, did not, as he should, insist upon payment in advance, but made the pictures without pay, and because they were not finished quite soon enough to suit Mr. Devaney's convenience, the aforesaid Devaney refused to pay for them. Upon this Mr. Cook prosecuted the obstreperous patron, and obtained judgment against him, to which an appeal was taken. In order to further spite Mr. Cook, the amiable Devaney appeared before the grand jury, and had Mr. Cook indicted for taking pictures on Sunday. At the earnest solicitation of Devaney, upon the representation that he had no clerk, and could not very well shut up his store during the week-days, Mr. Cook consented to take the pictures upon Sunday, not expecting, however, to be indicted for it by the gentleman whom he accommodated.

The result of the whole thing is that Mr. Devaney must pay for his photographs with costs. We hope another result will be that photographers will learn to maintain their dignity, and get their pay in advance from doubtful customers.

#### PHOTOGRAPHIC NEWS.

WE are indebted to Dr. Stein, of Frankfurt, for another scientific application of photography, which consists in an instrument employed for delicate mathematical work and for measuring the speed of various bodies. Dr. Stein seems to devote himself specially to the application of photography to his profession, and such is the case with his most recent invention. Physicians have for a long time used an instrument or apparatus for determining the velocity of nerve sensations one thousandths parts of a second, also from the unit, and no doubt it

is in connection with such an apparatus that photography has been employed by Dr. Stein. The readings are made with the eve with the old apparatus, but a photographic record is made by Dr. Stein's invention. Electricity, of course, is employed for opening and closing the exposure, and this movement he avers takes place within thirty-five thousandths of a second. with the apparatus constructed by him for recording the beats of the pulse and photographing the vibrations of sound, so in this instance are the minute waves recorded upon the sensitive plate in the manner indicated, and so delicate and fine as to bear magnifying to a high degree.

A solution of silk has been suggested as a substitute for collodion. One method of obtaining such a solution is by the employment of nickel ammonium oxide, which dissolves the silk; and now another method is brought forth by Lowe, who uses an alkaline-glycerin copper solution for the purpose. Those who have been experimenting in the direction of this substitute, will now have an opportunity of repeating their efforts, and no doubt it will be worth while.

THE old and unpleasant method of testing for the haloid salts of silver by fusing has been superseded by a method which secures much greater accuracy, and which is a great deal pleasanter, by Herr V. Goldschmidt, an eminent German chemist, which is very simple in its application. A cavity is made in the flat surface of charcoal, in which some powdered sulphite of bismuth is thrown, together with the silver compound to be examined. A blow-pipe flame is then applied; if a bright-red incrustation results, the silver is proved to have been iodide of silver; if the incrustation be of a deep yellow color, bromide was the silver compound, and if the compound has been chloride of silver, the incrustation These incrustations will will be white. form at some distance from the cavity of the charcoal, and are said to be very volatile. With this simple apparatus, a blowpipe and a piece of charcoal, photographers have it in their power to ascertain the real nature of any silver compound, and of distinguishing one from the other. The necessary sulphite of bismuth may be prepared by fusing bismuth with flowers of sulphur.

In the Correspondenz, Herr Lemling relates his experience of "Lichtdruck" printing, which he concludes as follows: "In conclusion I will here set down the answers of the remarkable questions which our friend was asked by those who are interested in the production of permanent photographs. First. Have carbon prints any real footing, considered from the best point of view? My answer is, certainly, in the case of a certain number of copies from one negative being required. Second. Is it a wise and a paying speculation for a photographer or lithographer to introduce Lichtdruck or any similar branch of photography into his business? I reply, without 'doubt, if he has the means at his disposal, and has opportunity to learn. Third. In what direction is Lichtdruck to be employed in a profitable manner? I answer, in every direction and on every occasion that a large number of copies of any one cliché are required."

If what Herr Lemling says be true (it doubtless is as to Lichtdruck at least), the time is coming when every extensive photographic establishment will have a department of Lichtdruck.

At the Amsterdam Exhibition of Photography recently closed, our friend, Mr. Henry Rocher, of Chicago, distinguished himself very creditably. A correspondent of the News says: "In my, and I believe the general opinion, Rocher, of Chicago, stands first for his portraits, each of which is a perfect gem. Each portrait is a genré picture, and our artists and painters are quite in raptures over them; in fact there is quite a revolution in photographic portraiture, and totally different from anything I ever saw."

Since the above, we have learned that Mr. Rocher was awarded at this exhibition a gold medal for his beautiful pictures, and we are very sure he deserved it.

The following dodge may be useful to carbon workers, given by Mr. T. B. Latchmore in the *News*. It is for localizing the development in carbon printing, as follows: "I take a small piece of very soft waste

leather, and wrap it around the finger, then dip it into a cup of warm water, to which a few drops of ammonia have been added, then gently rub the portions of the carbon print that appear too dark and lacking in detail. For instance, it sometimes happens that the hair appears too dark, whilst the face and lighted portions are everything that could be desired. By adopting the method I have described, I find it possible to bring all the detail out in the darker portions and shadows, whilst the lighter parts are not in the least degree affected. It is also a very rapid and easy method of reducing a rather over-exposed print; and by using the water hotter or colder, as the case may be, you have perfect control over the result. I find it also cleans the surfaces of the tissue from all specks of dust that are liable to become attached to it from the waste water, or other causes, which are very difficult to remove by an ordinary stream of water. It is astonishing what an amount of friction the tissue will bear with the moistened waste leather without in the least degree injuring the surface."

THE Stationer says: "An approved substance for mounting photographs, and that of the most equal consistence, is the white of an egg. Before mounting, dip the photograph in a basin of perfectly clean water, then lay it between a towel or piece of linen, which will absorb the superfluous moisture. Place it face downwards on a perfectly level and clean surface, and work the white of the egg with a small sponge and piece of stick, or a brush if the hairs are secured."

The story is told, with a good deal of gusto, of a French photographer who has made some wondrous revelations before a jury in France, with reference to a forged will, which he proved to be a forgery by means of photographic enlargements of two or three styles of writing by the accused. In this country this is no new thing; our old friend, Father Southworth, of Boston, has for ten or fifteen years devoted himself to expert work in this direction, and has proven many a forgery in the same manner, as well as the genuineness of many a paper.

THE Photographic Society of London has also been holding its exhibition recently,

and it is said to be the best one ever held. We have had the pleasure of seeing one of these exhibitions. While they are not so large as those held by our National Photographic Association, still they are much more encouragingly patronized by the public, and the result is always good for the fraternity. More effort is made to produce each year new composition pictures by the British photographers, as such subjects are largely purchased by the public, and so they would be here if the public was given the opportunity to purchase. We hope the day will soon arrive when we shall have another exhibition, and that during the two or three years that intervene we shall see great improvement in the direction named.

In speaking of the above exhibition, "Free Lance," in the British Journal, says: "But the array of pictures as a whole is excellent, superior I believe to most, if not all, previous displays. It is striking what a change has gradually been made in the class of work exhibited, artistic feeling being more common by half than it was within even a few years, but no less conspicuous and much more noted among the photographers themselves. Formerly to start photography was meant that failure had been sustained in some other walk of life, or that ambition stirring within the breast of the new man, he had determined to break from the trammels of shoe-blacking, whitewashing, and crossing sweeping, and with his hoarded shillings possess himself of a camera and become an artist; and we know, taking them as a whole, the body of photographers in those days, while boasting of persons among them of some of the best and most honorable men in existence, had also a larger sprinkling of knaves and black sheep generally than among another trade or profession. What tales the wholesale dealers could tell if they would. Fortunately, however, the ranks of our art now are recruited from a different class, and we have among us many men of trained talent, and many who are gentlemen; but it is evident that even yet we are not free from either blacklegs or black ---."

Let us hope that "Free Lance" may be more and more encouraging in the future,

and that he may use his desperate instrument to work all the very desirable changes mentioned. Let him be charitable, and not think too much about "casting pearls," etc.

"Free Lance" further says: "But not only in artistic but in technical directions do we progress; at least we are to have a reduction in one-half of our exposures. I see the names of well-known London photographers appended to M. Scotellari's advertisement, stating that they find a reduction in time of one-half by the use of his process, hence the process must be all right, and cheap at the money. I have not, however, heard of its uniform adoption in these gentlemen's studios.

"Let me finish by calling your attention to the latest cure for blisters: dipping the prints into muriatic acid before fixing. Here is silvering with a vengeance."

Mr. LIESEGANG addresses to the Paris Moniteur de la Photographie the following observations about photographic paper:

"Plain photographic paper is exclusively made in two mills, that of Messrs. Blanchet Bros. & Kleber, at Rives, near Grenoble, and that of Messrs. Steinbach, at Malmedy, in Rhenish Prussia. These papers are not perfect, but we must be contented with what we can get. For large sized prints, the Malmedy paper is generally preferred, because it is very strong and resists the action of the baths; the Rives paper is used preferably for cards. In France, paper weighing 8 kilogrammes (17½ lbs.) is almost always used, whilst in England and the United States, that which weighs 10 kilogrammes (22 lbs.) is preferred. The plain paper is covered with a single or double coating of albumen. Double albumenized paper gives prints of great strength of tone and more transparent; more care is required in operating, especially in summer, as then the thick coating has a tendency to break by rapid drying, causing blisters in strong alkaline baths, but the results obtained are so fine that large houses everywhere make use of it. The albumen coating may be either white or colored pink, blue, and lilac. Pale pink paper is preferable to white because it does not become yellow. Often buyers ask for freshly albumenized paper, but it is the

fresh paper that gives the most trouble, the results not being as fine as when a paper is used that has been kept in a dry place."

FROM Dr. Phipson's correspondence in the Paris Moniteur, October 1st, 1877: "A great number of experiments have recently been made, in order to discover the best method to adopt in the chemical laboratory to detect the presence of water and alcohol in commercial ether. After many trials it appears that the old method, which consists in washing the ether, is, after all, the best. A given quantity of the sample is put into a finely graduated tube; the volume is noted; the same volume of cold distilled water is added; the tube is corked to prevent a loss of ether by evaporation, then the whole is shaken, frequently reversing the When the ether contains alcohol, this last is dissolved in the water; the column of ether which rises to the top is measured with care, and the difference between it and the original volume represents that of the alcohol and water contained in the sample. As ether is slightly soluble in pure water, the results are a little too high. reality, one hundred parts of water dissolve ten parts of ether, whilst the same quantity of water dissolves an indefinite quantity of alcohol. To be exact, allowance must be made for the quantity of ether which may have been dissolved in making this little experiment."

A PRACTICAL process for engraving on metal by means of photography has just been published in English journals. For this purpose is used a plane and polished surface, either a silver plate or a silvered copper-plate. In each case it must first be polished, and then the polished surface exposed to the vapor of iodine, which forms a very thin coating of iodide of silver. This coating is exposed to the light under a negative until a weak image is obtained. plate is then placed in a galvanoplastic bath, which gives an image in copper, as this metal is only deposited on those portions of the plate which have been affected by the whites of the negative. As soon as this effect is obtained, a solution of acid, consisting of sulphuric acid and nitrate of potash in about equal proportions, is poured on the plate. This solution attacks the shadows, whilst the parts that have received the deposit of galvanic copper are not affected. (In the same manner it is possible to remove the silver from coins or medals made of silvered copper; the mixture of sulphuric acid and nitrate of potash rapidly dissolves the silver on the surface, leaving the copper exposed, phenomenon due in a great part to the development of electric action; if muriatic acid alone, or nitric and sulphuric acids were used, the action would be too strong to be controlled, and the copper would also dissolve.) After the plate has been acted upon to the desired depth, the deposit of galvanic copper is removed by means of aqua regia, which is done in a few minutes, leaving on the plate a beautiful "etching." To engrave in the same manner on copper, zinc, iron, etc., it is necessary to cover plates made of these metals with a coating of silver to obtain photographic action; the other operations remain the same.

PHOTOGRAPHERS who live under monarchical governments have some privileges which we glorious republicans do not have, namely, opportunity of so pleasing their rulers as to be able to have special medals conferred upon them, as has been the case recently with several. Herr Julius Von Kolkow, court photographer to the King of the Netherlands, has had a medal for science and art conferred upon him by the Grand Duke of Oldenburg, in recognition for other services. In connection with the Vienna Exhibition, the Emperor of Austria has decorated Herr Victor Angerer and Herr Julius Gertinger each with a gold cross for merit, and Dr. Horning, our esteemed contemporary and editor of the Photographisches Archive, with a knight's cross of the Order of Francis Joseph.

The German photographers are greatly grieved at the passage of the act which took effect recently, forbidding the shipping of collodion cotton in the usual way by rail in Germany. The Correspondenz explodes in quite an extensive manner on the subject, and at the meetings of the Vienna Photographic Society indignation seances are held repeatedly. Formerly only gun-cotton was forbidden to be sent in the way named, but

now the transportation of collodion cotton is absolutely not allowed, even though it should be packed in water, or in any other incombustible form. It is allowed, however, to send collodion, and shippers of such articles are consoling themselves with the fact that they may pack into a solution of ether and alcohol as much cotton as they will possibly dissolve, so that the resulting jelly will contain in every six parts one part of collodion cotton. If the German government makes progress backwards in this way, continually retarding the not-to-be-suppressed art of photography, we shall soon find photographers returning to their old habit of making their own gun-cotton. We hope, however, that the societies there will have influence enough to have the law repealed.

THE Photographic Journal of October 9th is entirely devoted to a catalogue of the pictures at the London Society's late display. On looking over the list of subjects, we notice what we have so often remarked, how much more attention is paid to the production of genré pictures there than there is here. We will suggest a few of the names given to some of the pictures, that our readers who choose to take a hint in this direction may try to work up similar subjects. "I am Sure He will Come," "Waiting for the Tide," "Waiting to Go On," "A Good Day's Sport," "Good Morning," "Feeding Time," "A Quiet Chat," "When the Day's Work is Done," "Clarisso," "A Few Finishing Touches," "Toddy," "A Quiet Cup of Tea," "Alone," "The Fisherman," "I am Going Walking, Sir," "After Dinner," etc.

THE convex chromo photographs are becoming the rage abroad. As an evidence of what an influence the introduction of any peculiar kind of photographs is liable to have in photography, we would state that this passion for convex chromo photographs in this country has made the manufacturers of velvet frames so busy that they hardly know how to fill their orders. The principal manufacturers in this country of such frames are Messrs. L. Pattberg & Bro., of New York; and we learn within a few days that one stockhouse in Philadelphia had

sold over a thousand dollars' worth of velvet frames for the purpose named in a month. A good many poor glassblowers, who would otherwise be out of business, are also kept employed by this new fashion. How many artists' colormen's mills are kept grinding continuously day and night to supply the demand we know not; we will hunt up the statistics.

HERR RICHTER, of Munich, gives the following toning-bath for albumenized pictures:

- (A.) Chloride of Gold, . . 1 grain. Water, . . . 1 litre.

Pour the solution A into the solution B; to this four drops of a saturated solution of cupric sulphate should be added, and the whole allowed to stand for a few days. The pictures should be toned only until the half tones appear somewhat bluish. The proper tone may be judged by watching the progress of the toning of the face specially. The operator will perhaps fear that his results are too red, but it will be found that the pictures are properly toned and the whites beautifully colored after fixing. A weak fixing-bath, say one to ten, is recommended.

A CHEERING sign of the times is evidenced in the fact, that we learn from our contemporaries that the public press this year has taken more than usual pains to notice and comment upon the recent photographic exhibition in London. The public also seem to attend in greater numbers than formerly. We are glad to see this. Last year, at our Centennial Exhibition, Photographic Hall was one of the principal attractions, and was well filled nearly the whole time.

Be cheerful and hopeful. Nothing hampers work so sadly as to get depressed and dismal. There is always room for improvement in the production of work, and these dull days are sent to enable you to sharpen up and to get ready for more business. Read, think, practice.

#### Editor's Table.

PICTURES RECEIVED.—An unusual flow of pictures has come to our table during the past month, no doubt caused by the efforts which some of our practical subscribers are making to produce good work for the holidays; this is well.

We have some most delicate vignette pictures of a lady from Mr. J. E. Beebe, a young photographer in Chicago, who is bound to be an ornament to the profession, if he keeps on as he has started. We certainly wish that he may do so.

Mr. W. C. Tuttle, of Belfast, Maine, sends us a sweet baby picture. Mr. Tuttle prides himself on his pictures of babies, and contributes an article to *Mosaics* this year on that subject. We shall not wonder if all the Belfast babies patronize him.

From Mr. James O. Merrill, Rutland, Vermont, we have some very creditable card pictures, including some of Rembrandt style of old and young.

From Mr. E. P. Libby, Keokuk, Iowa, examples of work made under his new light, which is constructed at an angle of forty-five degrees; bottom light, seven feet from the floor; top, fourteen feet from the floor; pictures of persons black and white.

From Mr. Julius Hall, Great Barrington, Mass., some examples of work which show Mr. Hall quite as able to haul in good portraits as well as splendid landscape views. We have before spoken in high praise of Mr. Hall's landscape work.

From Mr. C. F. Richardson, Wakefield, Mass., some excellent pictures of outdoor subjects, printed on his ready sensitized paper; the tones are equally good with those made by the ordinary process, and we do not see why Mr. Richardson should not have a large demand for his paper. It is no doubt of great convenience to amateurs, and those who have but a moderate amount of printing to do. We hope to make some experiments with it ourselves shortly.

From Mr. G. N. Pach, 341 Broadway, N. Y., an admirable animal picture, representing a group of pup dogs, the property of John Hoey, and recently exhibited at the dog show in New York. The expression of the subjects, and the excellency of the photograph, are both worthy of the highest praise. It is very seldom that

human babies behave more handsomely for the photographer than did these pets.

From Mr. Charles Knowlton, Kankakee, Ills., some examples of cabinet and card size of his best work. Mr. Knowlton paints his own backgrounds, he states, and his pictures show him to be a progressive photographer.

From Mr. C. W. Tallman, Batavia, N. Y., an example of his work of Rembrandt style, showing careful posing and lighting, and good printing.

From Mr. Alfred Freeman, Dallas, Texas, a photograph of his exhibit, made at the late Dallas County Fair, at which he received the premium, we understand. Mr. Freeman also sends a 11 x 14 picture of a lady, which we think is the best thing we ever saw come from him, and certainly does him great credit.

Mr. and Mrs. W. M. Lockwood, Ripon, Wisconsin, sent us some very interesting stereoscopic pictures, the most of which are of the interior of the very comfortable and convenient studio erected by them. Judging from the parlor and the operating-room, and the office and toning-room, Wisconsin can hardly boast of a more convenient and better place than this, is. We think we recognize on the shelf of the parlor some bound volumes of the Philadelphia Photographer.

From Mr. Louis de Planque, Corpus Christi, Texas, some photographs of an actress, of which Mr. de Planque writes as follows: "The lady entered my studio at ten o'clock A.M., dressed successively in three different costumes, and I made sixteen negatives of her in eleven different positions. By 6.30 p.m. I delivered to her one hundred cards neatly mounted, and received my money for them. I could not have accomplished the feat but for the regular visits and thorough study of your old standby, the Philadelphia Photographer, and study of the photographic literature of the day.

ITEMS OF NEWS. — Mr. E. M. Estabrooke, 31 Union Square, N. Y., is about furnishing a new studio.

Mr. J. H. Lamson, Portland, Maine, received the first premium, with the silver medal, at the late New England fair held in that city, with sharp and powerful competition against him.

Mr. W. M. Lockwood, Ripon, Wisconsin, owns the only "steam camera" in America; look for the description of it herein soon. Mr. A. N. Hardy is altering a block, and has fitted up a new gallery at 493 Washington Street, Boston, where he expects to remove about the first of December. He will then have enlarged facilities and improvements for the accommodation of his business, which has been gradually growing ever since he started it.

Mr. Frank Currier, of Omaha, Nebraska, is also building a new and commodious studio expressly for business.

The Prairie du Chien News recently devoted a half column to a notice of the exhibit of Mr. and Mrs. H. R. Farr, at the late fair held in that city. Mr. Farr's work is considered worthy of the highest praise.

The "Great Central," at 229 and 231 State Street, Chicago (Messrs. Charles W. Stevens and G. A. Douglass), owns a printing office, the result of which is an unusual flow upon our table of price-lists, books, designs for photographic cardmounts, and lists pertaining to velvet cases, buzine, the Beatrice miniature, and instructions for making the same, retouching of negatives, and one hundred and seventy-three other enterprises, more or less, which proves the "Great Central" to be well able to maintain its position as the "Hub" of the stock trade out West.

A Musical and Art Reception was held on the evening of November 1st, at their studio, 914 Chestnut Street, Philadelphia, by Messrs. Broadbent & Taylor, and was, we learn, a very elegant affair. During the evening copies of Mr. Taylor's album of the representative men of Philadelphia, were delivered to the authorities of the Library Company of Philadelphia, Mercantile Library Company, and the Historical Society of Pennsylvania.

A FEW weeks ago one of our correspondents asked us for the relative prices of ground and corrugated glass for skylights. While trying to find the information for him we lost his address. If he will write us again his inquiries shall be answered.

Photography again Triumphant.—In the article on a "Photographic Exploit" in our last number, we stated our experience in making certain photographs, and the purposes for which they were made. The counsel for the defendant in the case has just informed us that photography has again won, and that the plaintiffs were non-suited.

If photographers all over the country would urge upon lawyers the importance of patronizing

photography, they would win more cases than they do, as photography is an indisputable witness.

WE are glad to learn from Mr. Walter C. North that he has returned from his Canadian tour of instruction, after having set to rights and instructed several photographers in the Dominion, and that he is now in the State of Pennsylvania, giving instructions. Mr. North's present address is, care of E. Decker, Cleveland, Ohio, where all applications for his services should be addressed. His plan of giving instructions under your own skylight is a most excellent one, and with judicious advertising of his presence, often brings in lots of business where previously expenses had not been paid.

GOOD WORDS AS TO OUR APPEARANCE.-As we have recorded some of the good things that have been said about other people, we hope to be pardoned for quoting something that has been said of ourselves. Mr. F. M. Spencer, our esteemed correspondent at Mansfield, Pa., says: "I supposed that the Philadelphia Photographer was about as near perfect, typographically and editorially, as a trade journal could well be, and was, therefore, much surprised upon opening the October number to see the most charming issue of them all. I sincerely congratulate you. No wonder you couldn't hold any more, and all saddled and bridled, went around the circle wakening up sleepy photographers. I hope that we may altogether experience the long desired revival, and the V's come upon you like the leaves of the forest are now falling, ripe and golden." Does Mr. Spencer mean visions or \$5 notes? We hope the latter.

Modesty forbids us to say much, but for the information of those who seem to be anxious and solicitous about us, we have to repeat that we are now sole proprietor of the *Philadelphia Photographer*, and of the Centennial Photographic Company, and that our business is, under the circumstances, prosperous.

The Centennial Photographic Company's studio still remains at its old locality on the Exhibition grounds, and quite a number of skilled photographers are employed thereat constantly. Recently an order for an entire set of photographs of the Exhibition was sent to England, and now an effort is being made by a number of leading bank presidents and merchants of Philadelphia to present "Independence Hall Museum" with a

similar set. The State of Kansas is also negotiating for a large number for exhibition in the capitol of that enterprising State.

The "Scientific Society of St. Louis," and elsewhere, will please take notice; no suit for infringement of copyright, if this item is copied into their comical organ.

REDUCTION IN THE PRICE OF CENTENNIAL SLIDES.—Those who are about to organize exhibitions with the magic lantern during the coming autumn, will be glad to know that a reduction has been made in the price of lantern slides. Full information may be obtained by referring to the advertisement, whereby it will also be seen that a special list of these slides is offered at much less than the regular price.

THE September Photographische Correspondenz contains a very interesting picture, which is none other than the portraits of the committee of the Photographic Society of Vienna. It includes besides our friends Dr. E. Hornig, President, and Fritz Luckhardt, Secretary, the portraits of Messrs. Dr. Szekely, Wimpffer, Eder, Martin, Jenik, Antoine, Haack, Kramer, Gertinzer, Schrank, together with the three brothers, A., V., and L. Angerer. A most interesting picture to us, inasmuch as it includes several of our personal acquaintances and old contemporaries and co-workers.

Mr. Alfred Pumphrey, of Birmingham, England, has sent us a very interesting collection of photo-mechanical prints, showing their application to circulars, letter-heads, catalogues, pamphlets, etc.; a most interesting exhibit. Mr. Pumphrey also sends a very interesting article on the production of reversed negatives for Mosaics. We wonder that more photographers do not push mechanical printing as he is pushing it in England.

Look Out for Him.—A sandy-complexioned, smooth-faced, thinly clad, shabby-genteel villain, about thirty years old, calling himself Reeves, hailing from Boston, came into my establishment last week, asking for employment as printer, and upon being told his services were not needed, took the first opportunity to slip out unobserved, taking with him my overcoat, which he disposed of at the first pawnshop, and left town with his spoils to rob, perhaps, the next photographer to whom he might apply for work. He stated that he had last worked for a Mr. Turner, of Boston. I recovered my coat by the aid of our police department, but a daguerreotype which I had in

my pocket, as well as my gloves, handkerchief, letters, etc., were not found. The daguerreotype was highly prized by the owner, and was in my possession to be copied, and as I had not yet copied it the loss is sorely felt.

I give you this information, Mr. Editor, hoping you may publish it, and that photographers may thereby protect themselves against this vagabond.

G. M. CARLISLE.

PROVIDENCE, R. I., Nov. 17th, 1877.

Good Words for Ourselves.—On all sides we receive kindly words of commendation from north, south, east, and west. We are told that our magazine improves constantly, and that it still holds; as it has always held since its birth, the position of the general favorite. No live photographer should live without this magazine with it.

Hance's Photographic Specialties.— The value of these important articles of manufacture is established by the fact, that increasing orders for them have caused the manufacturer to make new arrangements for their production, and receive continual recommendation. Among the last was one from Mr. L. P. Vallee, of Quebec, Canada, who says: "I have some important views to take, and I think your collodion is the most reliable; please send Double Iodized, White Mountain, and Niagara Falls as per order above." Mr. Hance's Ground-glass Substitute is an article that no photographer should ever be without.

Mr. B. W. Kilburn, Littleton, N. H., sends us supplementary catalogues of his views, which give the title of some of his recent gems. Mr. Kilburn has now ready for the market a new series of the artistic, or Centennial size he sees best to call them, and they are very handsome, as a large series of them before us testifies. He has proven himself a better photographer even in this large size than he did in his others, something which every photographer does not do. We are glad to know that as his reward he is having as much as he can do to keep sufficient stock in hand.

Two thousand more subscribers wanted at this office. Do you not know that the more you aid us in adding to our patrons, that the better you enable us to give you more for your money? Look at our premium list and our special circular, and then work for our mutual good.

HAPPY NEW YEAR! Our last words for December, 1877.



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HANDBOOK OF THE PRACTICE AND ART OF PHOTOGRAPHY. By Dr. H. Vogel. Price, \$3.50.

For general photographic practice this is the best text-book in the world. Written by an old professor who teaches photography, it gives just what is wanted in the fullest and most satisfactory manner.

THE PRACTICAL PRINTER. By C. W. HEARN. Price, \$2.50. Second edition in press.

This is a most handy and reliable book. It goes into all the operations of plain and fancy printing in silver, and is full of good.

AMERICAN CARBON MANUAL. Price, \$2.00.

For those who want to try the Carbon printing process, this work gives the most detailed information.

PHOTOGRAPHER'S POCKET REFERENCE BOOK. By Dr. H. Vogel. Price, \$1.50.

For the dark-room. It meets a want filled by no other book. Full of formula—short, practical, and plain.

THE FERROTYPER'S GUIDE. Price, 75 cents.

Cheap and complete. For the Ferrotyper, this is the only standard work. Seventh thousand.

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WILSON'S LANTERN JOURNEYS. By EDWARD L. WILSON. Price, \$2.00.

For the lantern exhibitor. It gives incidents and facts in entertaining style of about 800 places and things, including 200 of the Centennial Exhibition.

BIGELOW'S ARTISTIC PHOTOGRAPHY. Price, \$5.00.

For the lover of art. Beats his "Album of Lighting and Posing." Superb! With twelve photographs and instructions.

BURNET'S HINTS ON COMPOSITION. Price, \$3.50.

All should study it. A splendid work, largely illustrated, giving all the principles and rules of artistic posing.

STUDIES IN ARTISTIC PRINTING. By C. W. Hearn. Price, \$3.50.

Embellished with six fine cabinet and promenade portrait studies.

PHOTOGRAPHIC MOSAICS, 1878, just issued: Cloth bound, \$1.00; paper cover, 50 cts. Better than any of its predecessors.

#### ALL FOR EVERYBODY.

EDWARD L. WILSON, Photo. Book Publisher,

116 N. Seventh St., Philadelphia.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure answers to parties who advertise. Please always add your address to the advertisement.

#### WANTED TO SELL

The largest gallery in the State of Georgia, situated in Augusta. It is a strictly first-class place, provided with every modern appliance, including Dallmeyer instruments. The owner has just purchased the Wenderoth gallery in Philadelphia, associating with him Mr. John L. Gihon.

The impossibility of conducting two studios so far apart is the only cause for sale. The location is specially recommended to those whose health renders a Southern residence desirable. For particulars, apply to

JOHN USHER, Jr, 206 Broad St., Augusta, Ga.

Or, 1328 Chestnut St., Philadelphia.

A NEW WORK OF THE GREATEST FINAN-CIAL VALUE TO THE PHOTO-GRAPHIC FRATERNITY OF THE CONTINENT.

WILL BE ISSUED FOR GRATUITOUS CIRCULATION.

DO NOT FAIL TO SEND YOUR ADDRESS FOR A COPY TO

RICHARD WALZL,
National Photographic Emporium,
BALTIMORE, MD.

Doney's Photo-Engraving.—A new and beautiful style of picture recently patented and perfected by the undersigned, for producing Photographs which for beauty of finish and artistic effect, excel anything ever brought before the public. The photo-engraving can be made by an ordinary photographer with no more labor, requiring no additional outlay for instruments or chemicals, and at very little extra cost, while its superiority over the retouched photograph commands higher prices. No photographer can afford to be without this beautiful style. Send for circular and references.

T. Doney, Elgin, Ill.

first-class in every respect. Cost \$450. Box, one of Anthony's best, double swing-back, seven feet extension, carries plates from 8x10 to 18x22. Cost \$90. Is in excellent order. The whole will be sold for \$240 if applied for immediately. Worth double the amount.

J. H. KENT, 58 State St., Rochester, N. Y.

For Sale.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Ningara, etc.

Apply to Benerman & Wilson,
Publishers Philada. Photographer.

THE GORHAM STOVE.—No photographer can' get more for his dollar than by investing in a "Gorham Stove." It is tiny in size but a giant in usefulness. See advertisement.

Wilson, Hood & Co., 822 Arch Street, Philadelphia.

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.



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INVIVORALIZEND FUCKEI KEFEKENUE BUUK. BY Dr. H. VOGEL. \$1.50.

For the dark-room. It meets a want filled by no other book. Full of formula-short, practical, and plain.

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To Photographers.— One of the best Photographers in the country desires a position in a good gallery. The very finest New York work will be turned out.

Address, H., P. O. Box 4266, New York.

For Sale.—A first-class gallery. A splendid chance for a good man in a place of 8,000 inhabitants. Only one other gallery. Will sell cheap for cash. Satisfactory reasons given for wanting to sell. For further particulars, address H. Garrett.

Box 13, Canandaigua, Ont. Co., N. Y.

GALLERY FOR SALE at Mahanoy City. MUST be Sold. Cost over \$600. Population over 8000. Write for particulars and then offer.

Address

C. S. ROSHAN,

1206 Taney St., Philada.

Or, C. S. Wells, Mahanoy City, Pa.

IMPORTANT ANNOUNCEMENT.
IN PRESS.

THE FIFTH EDITION OF THE PHOTOGRAPHER'S FRIEND.

A NEW WORK OF THE GREATEST FINAN-CIAL VALUE TO THE PHOTO-GRAPHIC FRATERNITY OF THE CONTINENT.

WILL BE ISSUED FOR GRATUITOUS CIRCULATION.

DO NOT FAIL TO SEND YOUR ADDRESS FOR A COPY TO

RICHARD WALZL,
National Photographic Emporium,
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Doney's Photo-Engraving.—A new and beautiful style of picture recently patented and perfected by the undersigned, for producing Photographs which for beauty of finish and artistic effect, excel anything ever brought before the public. The photo-engraving can be made by an ordinary photographer with no more labor, requiring no additional outlay for instruments or chemicals, and at very little extra cost, while its superiority over the retouched photographe commands higher prices. No photographer can afford to be without this beautiful style. Send for circular and references.

T. Doney, Elgin, Ill.

#### SEAVEY'S NEW SPECIALTIES IN BACKGROUNDS AND ACCESSORIES.

Seavey's Winter Landscape. Per sq. ft., 25 cts. No. 81 with Damask Center and Rennaissance. Three backgrounds combined. Exhibited at the Centennial. Per square foot, 30 cents. Liennard Cabinet. Per square foot, 30 cents.

#### LATE ACCESSORIES.

Papier-Mache Fire-Place and Cabinet combined.

A new, elaborate, and superior accessory.
Price, \$40.

Papier-Mache Antique Venetian Chair. Copies of highly carved originals. Price, \$12.

Papier-Mache Vases. For use with Kurtz's Balustrade. Large size, \$5. Small size, \$4.

Address Seavey's Scenic Studio, 8 Lafayette Place, N. Y.

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MAMMOTH CAMERA FOR SALE.—Holmes, Booth & Hayden tube of largest size, central stops, and first-class in every respect. Cost \$450. Box, one of Anthony's best, double swing-back, seven feet extension, carries plates from 8x10 to 18x22. Cost \$90. Is in excellent order. The whole will be sold for \$240 if applied for immediately. Worth double the amount.

J. H. KENT, 58 State St., Rochester, N. Y.

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#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, Hood & Co. Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876.

Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmayer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages. They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us.—W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

C. SEAVER, JR.

SITUATION WANTED.—By a capable man of fifteen years' experience in the leading stock-houses of New York and Boston. Can command a good trade. Well posted in buying and selling. Address Taff,

Care of Philadelphia Photographer.

MR. John L. Gihon is ready to enter into an engagement with any leading photographer. He has had over twenty years of practical experience. He was an artist by profession before adopting photography, and can, therefore, fill the position of either colorist, poser, or operator. Specimens of his work have appeared in this Magazine, and his writings have rendered his name familiar to most of its readers. Address John L. Gihon,

Office of *Philadelphia Photographer*, 116 North Seventh St., Philadelphia.

#### HERMACIS LENS TESTIMONIAL.

Philadelphia, March 21, 1876.

Messrs. WILSON, HOOD & CO.

I take pleasure in testifying to the perfect working of the "Hermagis" just purchased from you. We have tested it particularly as to its depth of focus, and find it to combine with this a rapidity of working which makes it doubly esteemed. Very respectfully,

> WM. CURTIS TAYLOR, 914 Chestnut Street.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zine or iron mat to cut best, and mark it."

Photographic Hall.—The four sizes of electrotypes of Photographic Hall, are as follows:  $1\frac{1}{4} \times 2$  in.,  $2 \times 3\frac{1}{4}$  in.,  $4 \times 6$  in.,  $4\frac{1}{2} \times 7\frac{1}{4}$  in. See cut on next page. For sale by

CROSSCUP & WEST, 702 Chestnut Street, Philadelphia.

#### THE ROBINSON TRIMMER.

RICHMOND, IND., August 11, 1875.

MR. EDW. L. WILSON.

DEAR SIR: I feel as though I should say a few words in praise of the Robinson Trimmer and Guides I received from you. The trimmer does its work admirably, do not know how I should do without it; and the round-cornered guides, for eards, is something new, and makes the picture look much neater when compared with the old square cut kind, from a glass pattern.

The guides, all sizes, are the nearest perfect of any I ever used. But what I wish to request of you in particular is, to publish in your Journal the right way for sharpening the trimmer, I am certain this will be looked for by a great many with interest. I have used mine now constantly for some time, and it does not need it yet; but, in case it does, would not like to spoil it with any experimenting. Yours respectfully,

M. WOLFE.

LUCKHARDT'S ELEGANT STUDIES.—We have just received an invoice of splendid studies of the female figure, by Fritz Luckhardt, Vienna. The size, 8 x 10; the price, \$3.50. Order quick!

Wilson, Hoon & Co., 822 Arch Street, Philadelphia.

#### WAYMOUTH'S VIGNETTE PAPERS.

PIANOS AND ORGANS.—Photographers wishing to buy a Beatty Piano or Organ, can get extra inducements through photographing. Address DANIEL F. BEATTY, Manufacturer,

Washington, N. J.



PHOTOGRAPHIC HALL.—Electrotypes of Photographic Hall, four sizes, from the above up to the size in February, 1876, number of this magazine. For prices apply to

CROSSCUP & WEST, Seventh and Chestnut Sts. Or, BENERMAN & WILSON, Philadelphia.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

A young artist, who is in business for himself, would like a permanent situation in a first-class gallery; is a first-class printer, etc. Reasonable salary expected. Address H. W. K., 99 Monroe Ave., Rochester, N. Y.

A young man who is a good printer, retoucher, and operator, would like a situation; small wages expected. Address Howard, Box 143, Alden's branch, Springfield, Mass.

By a lady of long experience to retouch negatives or print and tone; can assist in operating. Salary to suit the times. References satisfactory. Address C., Box 60, Smithton, Tioga Co., N.Y.

As printer or operator by a young man with four years' experience, good reference can be given. Address Charles T. Fellows, 3939 Baring Street, West Philada.

By a first-class negative retoucher, printer and toner, finisher or assistant operator. Late of Notman's. Send for first-class testimonials and samples of work. Would prefer New York State or Canada. Address Photo. Artist, Box 208, Brockville, Ontario, Canada.

A first-class operator and retoucher will be open for an engagement after January 1, 1877, parties meaning business will please address for terms and samples of work. W. L. Hoff, care W. H. Allen & Bro., 14 & 16 E. Larned Street, Detroit, Mich.

As operator, retoucher, or to take full charge of good gallery; eight years' experience in city galleries, work first-class and salary moderate. Lyon, Photo., Harrisburg, Pa.

Will connect myself with a first-class gallery as operator or retoucher, or would buy the right kind of a place. Operator, Lock Box 1896, Biddeford, Me.

By a No. 1 operator and retoucher in a first class gallery, long experience in best galleries in the country, unexceptional references. Address Operator, Box 826, Warren, Prumbull Co., O.

By a practical photographer as operator, retoucher, or printer, or will run a good gallery on shares, or will furnish instruments with some good man that will go in partnership in some good-paying town or city. For particulars please address Operator, Lock Box 81, Ottumwa, Iowa.

By a young man as printer and toner, or general assistant in some gallery; will work for enough to pay my board and washing. Address C. M. Wells, Wheeling, W. Va.

By a young man of two years' experience in a first class gallery to do general work, or as printer and toner. Recommendation from late employer: Address Geo. M. Bolton, Rockville, Conn.

A first-class retoucher and assistant operator open for an engagement, at moderate salary, best of references. Address Artist, 259 Perry St., Philada.

# DR. VOGEL'S PHOTOGRAPHER'S

POCKET

# REFERENCE BOOK.

#### ONLY A FEW COPIES LEFT!

An Alphabetically arranged collection of practically important hints on the construction of the Gallery; selection and trial of lenses and chemicals; approved formulæ for the different photographic processes; tables of weights and measures; rules for avoiding failure, etc.

#### IT IS A BOOK EVERY PHOTOGRAPHER SHOULD HAVE,

Because it is a ready helper under all difficult circumstances.

For sale by all dealers. Price, \$1.50, post-paid.

BENERMAN & WILSON, Photo. Publishers,

PHILADELPHIA, PA.

### Beautiful Gifts

For all the year round. There is no present can be made more interesting or appropriate than a choice selection of our beautiful

## Centennial Views.

We make a liberal discount to photographers from the regular prices, which are as follows:

Stereos, \$3.00 per dozen,

5 x 7, 50 cents each, or \$6.00 per dozen, 8 x 10, \$1.00 each,

13 x 16, \$2.50 each,

17 x 21, \$5.00 each.

Sent post paid on receipt of price. Special terms and catalogue sent on receipt of stamp.

Address,

BENERMAN & WILSON.

116 North Seventh St., Philadelphia, Pa.

# <u>CAUTION!</u> AGAINST COPYING

The VIEWS of the

CENTENNIAL PHOTOGRAPHIC CO.

Whereas, there seems to be a disposition among certain photographers to copy and publish our Views, contrary to photographic courtesy and right, and contrary to photographic courtesy and right, and contrary to Law, we hereby caution all persons against such action, and notify them that we shall prosecute any whom we may find making or selling such copies to the full extent of the law.

Moreover we offer

#### S100 REWARD

For the apprehension and conviction of any parties so engaged, and a liberal reward for any information against said parties.

THE CENTENNIAL PHOTOGRAPHIC CO.,

WILSON & ADAMS, Proprietors,

Exhibition Grounds, Philadelphia.

# THE PHOTOGRAPHER TO HIS PATRONS.

WHAT IS IT?

HE PHOTOGRAPHER TO HIS PATRONS is a little book or pamphlet of twelve pages, the intention of which is: 1st. To enable the photographer to say a few words in a kindly way to those who have photographs taken, in order that the intercourse between them and their photographer may be pleasant and result in the most successful pictures. Every photographer knows that he is constantly beset with a lot of questions, as to the proper way to dress, the best time to come, and so on, which take a great deal of his time to answer. This little book answers them all, and the mere handing of a copy to the questioner, which he or she can carry away and study at leisure, serves as admirably as a half-hour's conversation.

2d. It is a cheap mode of advertising. What could you want better than to have your business card so attractive that people will come and ask for it, hand it around from one to another, discuss it, and then keep it for reference? This is what they do with this little "tract." Witness what those who

have tried it say below.

3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

How far the work serves these three ends the reader must judge from the testimonials below, of a

few of those who have been using our little publication in their business.

We believe it will pay you to use it, and that you will assist just that much in elevating your art and your craft, an object which we are all working for.

We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying from spring the

ing, frames, prices, &c.

All this is inclosed in a cover of the same kind of paper, the pages of which are at the service of the photographer who orders them to have printed thereon anything he may please, which printing we do without extra charge. We publish this leaflet in English, German, and Spanish.

#### Cuts for the covers we supply free.

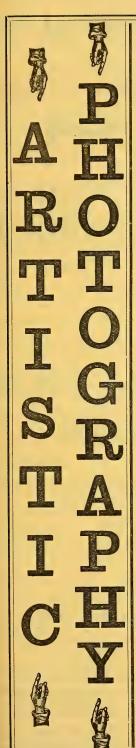
. . \$20 00 3000 copies, cover included, . . \$50 00 1000 copies, cover included, . 35 00 5000 Over 500,000 have been sold.

#### TESTIMONIALS.

- "I sent one out West to a friend, and she wrote that she was now posted, and when she came here to have a picture made, she would come 'according to directions.' ... A. Bogarbus, New York.
- "It assists me greatly."-JAMES MULLEN, Lexington, Ky.
- "A grand idea."-ELBERT ANDERSON.
- "You have conferred a great favor on the fraternity in supplying it."-A. C. McINTYRE & Co., Ogdensburg.
- "It is the best advertising medium I have ever found."-H. M. SEDGEWICK, Granville, O.

We send samples to any who may desire.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh Street, Philadelphia.



#### A NEW WORK ON

### PHOTOGRAPHY AND ART.

Promenade Photographs.

BY

#### LYMAN G. BIGELOW,

Author of "Bigelow's Album of Lighting and Posing."

This is a beautifully gotten up work, and contains full instructions in every department of Photography.

Mr. Bigelow is well known as an accomplished artist and excellent teacher, and we are sure his new work will be welcomed by all who are aiming for improvement in the higher technical elements of photography.

Price, \$5.00.

FOR SALE BY

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J. Pitcher Spooner.
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Ammonia Nitrate of Silver Solution for Paper Positives. William W.

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116 North Seventh Street, Philadelphia. Pa.

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MANUFACTURERS OF

# PHOTOGRAPHIC CARDS AND CARD BOARDS,

OF EVERY DESCRIPTION.

#### Warehouse:

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PHILADELPHIA.

IMPERIAL CARDS.

Size,  $6\frac{7}{8} \times 9\frac{7}{8}$ .

BOUDOIR CARDS.

Size,  $5\frac{1}{4} \times 8\frac{1}{2}$ .

White, Gray, Granite-Blue, Pearl, Amber, Tea.

Plain; also, with Gilt Borders, and with Gilt or Red Beveled Edges.

See detailed advertisement in this number of the "Photographic Times."

PRICE LISTS FURNISHED ON APPLICATION.

# HEARN'S STUDIES IN ARTISTIC PRINTING.

By the Author of the "Practical Printer," and Proprietor of Hearn's Photographic Printing Institute.

It is the aim of the author to make this new effort a source of profit to all who may peruse it; therefore, he has embellished the work with

#### Six fine Cabinet and Promenade Portrait Studies

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$2\frac{3}{8} \times 3\frac{3}{8}$	$4\frac{3}{8} \times 6\frac{3}{8}$	$6\frac{1}{2} \times 8\frac{1}{2}$	$\begin{array}{c c} 2\frac{5}{16} \times 3\frac{15}{16} \\ 2\frac{5}{16} \times 3\frac{3}{4} \end{array}$	$2\frac{7}{8} \times 4\frac{5}{8}$	$3\frac{7}{8} \times 6$ $4 \times 6\frac{1}{8}$		
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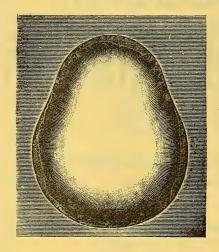
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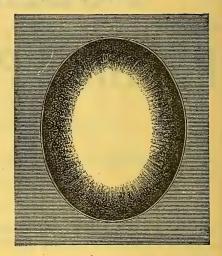
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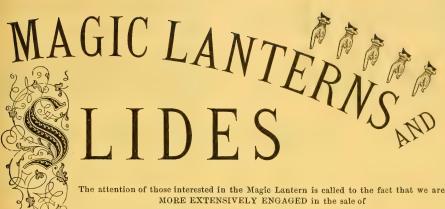
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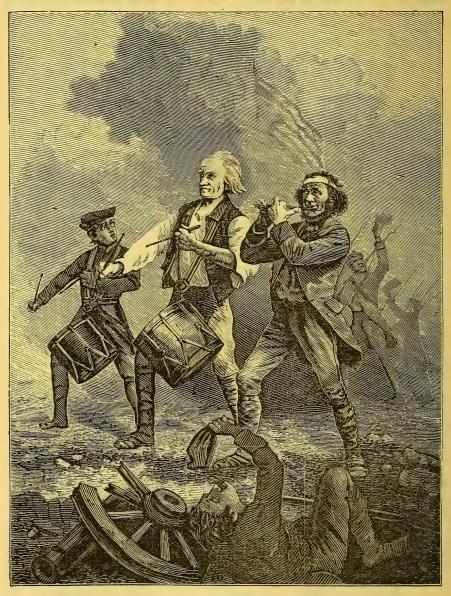
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We have a surplus of instruments that were used in photographing at the CENTENNIAL EXPOSITION, which we offer at a great sacrifice, viz.:

#### LENSES!

Forty pairs Morrison's Wide-Angle Stereo. Lenses.

Fifteen single Morrison's Wide-Angle View Lenses, of various focal lengths from  $2\frac{1}{2}$  inch to 22 inch.

Three Morrison's Rapid Group Lenses, each D, E, and F.

Two pairs each 1-4 and 1-2 "Peerless" Portrait Lenses.

Three single 1-4 and 1-2 "Peerless" Portrait Lenses.

One 4-4 and Ex. 4-4 "Peerless" Portrait Lenses.

One 8-4 "Peerless" Portrait Lens.

#### AMERICAN OPTICAL CO.'S CAMERA BOXES!

AS FOLLOWS:

Six 8-10 Imperial Boxes, double swing back.

One 10-12 Portrait Box, " "

One 18-22 Portrait Box, " "
Seven 8-10 Venus View Boxes," "

Twenty 5-8 Stereo. View Boxes, single swing back.

One 10-12 View Boxes, double swing back.

Three 11-14 " " " "

One 20-24 " " " " "

The Lenses were made ESPECIALLY for us, and we will GUARANTEE every one of them. Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained and bear no other evidence of having been used.

All these instruments and apparatus for sale at 25 per cent. discount from manufacturers' regular prices.

Sent C. O. D., if partial remittance accompanies order, and chance given to examine.

#### CENTENNIAL PHOTOGRAPHIC CO.,

Belmont Avenue, International Exhibition, Philadelphia, Pa.

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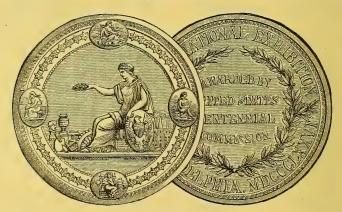
WE ARE NOW PREPARED TO FURNISH

#### **ELECTROTYPES**

OF THE

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IN THREE SIZES.



THIS CUT REPRESENTS THE MEDIUM SIZE.

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Large Size,			•	\$1 75	•.			\$3 00
Medium, .								
Small,				75				1 25

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# PROMENADE PRIZE PICTURES.

JULY COMPETITION.

To enable all photographers to study these

## GEMS OF ART,

We offer prints from the competing negatives, for sale at the prices below.

They are the most exquisite things we ever offered, and will teach any one, be he a good or poor operator.

## THE GOLD MEDAL

Was awarded for the best six negatives to Mr. Henry Rocher, Chicago, Ill., whose pictures are marvels of beautiful photography. The studies are all mounted in tasteful style, on Collins' Mounts, and printed at our own rooms by Mr. Chas. W. Hearn, and are fine studies in posing, lighting, printing, and toning.

#### THE SETS INCLUDE:

Nos.	1	to	7,						Studie	s by H. Rocher, Chicago.
66	8	to	16,						66	L. G. Bigelow, Detroit, Mich.
66	17	to	22,							I. W. Taber, San Francisco, Cal
46	23	to	27,						44	C. M. French, Youngstown, O.
46	28	to	31,						66	Core & Frees, Tiffin, O.
"	32	to	37,						- 66	E. M. Collins, Oswego, N. Y.
66	38	to	42,						46	J. H. Folsom, Danbury, Conn.
44	43	to	48,						44	E. H. Alley, Toledo, O.
See	e I	Rev	iew	in	A١	ıgı	ıst	n	umber .	Philadelphia Photographer, page 242.

The whole set of 48,	\$12	00
In two Photo. Covers,	13	50
Selections, per dozen,	4	00
per two dozen,	7	00
The 21 of Messrs. Rocher, Bigelow, and Taber,	6	00
Book Covers and Binding,		75

Address all orders to

BENERMAN & WILSON, Publishers, 116 North Seventh Street, Philadelphia.





LONDON 1862.









## ROSS'

We have now successfully introduced to the American Photographers the Ross LENS, and by our increased sales we know they are appreciated. At the convention held at Buffalo, July 15, many fine photographs were exhibited by photographers, and ourselves, made with the Ross Lens, which attracted great attention.

While Ross & Co. are the oldest manufacturers of Photographic Lenses in existence, they also keep up with the requirements of the fraternity, by constantly manufacturing new combinations and improving on those already in existence. They have lately perfected, and will soon furnish us stock of, a new series of Card Lenses, extra rapid, peculiarly adapted for babies, and people who will not be quiet. We will give notice of their arrival.

#### WE HAVE NOW IN STOCK

Portrait Lenses, from 1-4 to 15 x 18. Instantaneous Doublets, all sizes Cabinet Lenses, Nos. 1, 2, and 3. Medium Learner Card Lenses, Nos. 1, 2, and 3. Large Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7. Ster Symmetricals. Rapid Symmetricals. Medium Angle Doublets, all sizes.
Large Angle Doublets, all sizes.
Stereographic Leuses, all sizes.
netricals. New Universal Lens.

Numerous testimonials pronounce them to be the best, as well as the cheapest Foreign Lens ever offered to the American Photographer. We will mail price-list on application, and promptly fill all orders.

## STEINHEIL'S SONS' NEW APLANATIC LENSES.

We now have a full stock of these Celebrated Lenses, at the following prices:

No.	1,1-4	size	31	inch	focus,.	\$2	25 00	No	. 5, .	10-12	size	, 13 إ	inch	focus	\$70	00
6.	2, 1-2	4.4	5 1	6.6	"		30 06	) "	6,	13-16	4.6	16 1	6.6	6.6	110	00
66	3,4-4	6.6	7	6.6	"	4	45 00	) "	7,	18-22	6,6				200	00
"	4,8-1	) "	104	4.6		(	30 00	)   "	8,.	20-24	61				350	00
			N	00 1	& 2 are	in m	ntahe	d noi	no fo	r Starone	anni	a Work				

We feel sure that at least one of these lenses is needful for the successful prosecution of your business,

WILSON, HOOD & CO., THE UNITED STATES, 822 Arch St., Philadelphia, Pa.

## CHARLES COOPER & CO.,

191 Worth Street, New York,

OFFER AT WHOLESALE:

PHOTOGRAPHIC CHEMICALS, strictly pure and of full weight.

CROSS-SWORD DRESDEN ALBUMEN PAPER, Single and Extra Brilliant.

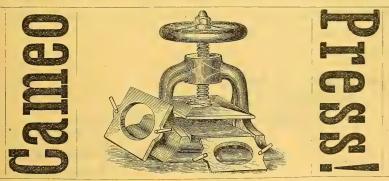
EVAPORATING DISHES.

GERMAN SOLID GLASS BATHS.

PORTRAIT LENSES—C. F. Usener's Celebrated.

The largest and most reliable house for Refining Waste and Residues.

## The Universal



## EMBOSSING PATENTED JANUARY 9th, 1872.

This Press will cameo all sizes, from cards to cabinets, and is sold lower than any other that will do the same work. It has been greatly improved and made very complete in all its parts.

We furnish a card, victoria, and cabinet size.

PRICE, \$20.00.

MANUFACTURED AND SOLD WHOLESALE AND RETAIL BY

WILSON, HOOD & CO., 822 Arch St., Philadelphia.

CAUTION.—Photographers are cautioned against buying other presses that may use an elastic embossing substance, as they are an infringement on the above.

R. J. Сноте, Patentee.

# G. CENNERT

38 Maiden Lane, New York,

IMPORTER OF THE CELEBRATED

# S. & IM. DRESDEN ALBUMEN PAPERS

SINGLE OR EXTRA BRILLIANT.

This paper has been imported by me to the great satisfaction of Photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO,

Hyposulphite of Soda, Sulphate of Iron,

Solid German Glass Baths,
Saxe Evaporating Dishes,
French Filter Paper,
Porcelain Trays.

## FERROTYPE PLATES.

I ALSO IMPORT EXTRA BRILLIANT

CROSS-SWORD PAPER.

SAMPLES GIVEN ON APPLICATION.

## IMPROVED

## PHOTOGRAPH COVERS.

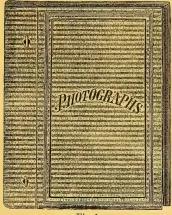


Fig. 1.

The Outside Appearance.

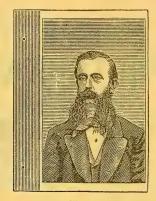


Fig. 2.

A Leaf Showing the Guard.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

### IT SERVES ALL THE PURPOSES OF AN ALBUM, FOR

A Series or a Set of Portraits,

A Series or a Set of Landscapes,

A Series or a Set of Photographs of any kind,

#### MAY BE NEATLY AND CHEAPLY BOUND IN THESE COVERS.

They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. Fig. 1 represents the cover, with the perforations in the back, through which the spreading clasps of the paper fastener bind the whole together. These are so easily inserted or removed, that pictures are readily put in or taken out at any time. Fig. 2 represents the picture, with the guard pasted on ready for insertion. The arrangement is simple, and we are sure will be readily comprehended. For binding together views of your town or city, or portraits of celebrities, they are very neat

The following is a list of sizes and prices, without cards:

For Photogra	ph.					Per dozen.				Per hundred.
Card Si	ze.		٠.			\$1.50				\$10.00
Cabinet	Size	, .		4.		2.25		1		13.50
EXTRA HEAVY	COVE	RS.								
5-8 Size						4.50		,		33.00
4-4 66	´ .   .					6.00				40.00
8-10 "						8.00	4	.7		56.50
11-14 "						9.00				65.00

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price. Send for some.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh Street, Philadelphia.

## JAMES F. MAGEE & CO.

MANUFACTURERS OF

PURE

## PHOTOGRAPHIC CHEMICALS,

No. 108 North Fifth Street,

PHILADELPHIA.

Stock Dealers only Supplied.

# PHOTOGRAPHIC PRINTING INSTITUTE.

PRINTING FOR THE TRADE.

Instructions Given in Artistic Printing.

SEND FOR NEW PRICE LIST.

[37 All communications should be addressed to the proprietor, at the Institute,

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C. W. HEARN, Proprietor.

## BENJ. FRENCH & CO.,

319 WASHINGTON ST., BOSTON,

IMPORTERS AND SOLE AGENTS FOR THE CELEBRATED

# Voigtlander & Son Darlot LEWSES,

## NEW STEREOSCOPIC LENSES.

New Stereoscopic Tube and Lens, made expressly for us, marked with our name (imitation Dallmeyer), with rack and pinion, central stops, for portraits or views. Will work in or out of doors. Also, for instantaneous pictures. Four inch focus, **price per pair**, **\$21.00.** By taking out back lens, and using only front lens in place of back, you get six inch focus. The great and increasing demand for all these lenses, is sure guarantee that they are the best. Read the following

## Testimonials.

"I have tried the Mammoth Voigtlander you sent me, and I consider it the best large instrument I have ever seen, and I have tried those made by other makers, Dallmeyer's included, and they do not compare with the Voigtlander. All my baby pictures were made with half-size Voigtlander lenses."—J. Landy, 208 W. Fourth St., Cincinnati, Feb. 25, 1874.

"The Voigtlander lenses have always been favorites with me. My first experience, in the days of daguerreotype, was with one, since which I have owned and tried many of the different sizes and never saw one but was an excellent instrument. Lately again trying some for my own use and for a friend, I found them to be superior to other eminent makers, particularly in the large sizes."—W. J. Baker, Buffalo, N. Y.

"Twenty-four years ago I bought and commenced using my first Voigtlander lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good. Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before."—J. F. Ryder, Cleveland, Ohio, Dec. 18, 1872.

"About a year ago I bought a Voigtlander & Son No. 34-4 size lens. Said instrument gives me great satisfaction, being very quick, at the same time has great depth of focus."—E. G. MAINE, Columbus, Miss.

"Have never seen anything equal to the Voigtlander & Son Lens. The No. 5, Ex. 4-4 is the best instrument I ever used. I cannot keep house without it."—D. B. VICKERY, Haverhill, Mass.

"The pair of imitation Dallmeyer Stereoscopic Lenses you sent we are very much pleased with; they work finely."—GOODRIDGE BROS., East Saginaw, Mich.

"After a trial of your imitation Dallmeyer in the field with those of the Dallmeyer Rapid Rectilinear, side by side, I can say that for general views I like yours as well, for some objects far better, on account of their short focal length."—D. H. Cross, Mosher's Gal., Chicago.

New Catalogue of Prices Just Issued, to be had on Application.

## WILSON'S

## Lantern Journeys

By EDWARD L. WILSON,

Editor of the "Philadelphia Photographer."

This work will be found entertaining by all who like to read about the beautiful places and things of this world.

The contents are divided into six "Journeys," each one including a visit to 100 places, making 700 in all, as follows:

- JOURNEY A-Havre, Paris, Versailles, Rouen, Fontainebleau, and Switzerland.
- JOURNEY B—Compiegne, Brussels, Aix la Chapelle, Cologne, Up and Down the Rhine, Potsdam, Berlin, Dresden, Vienna, the Vienna Exposition, the Semmering Pass, Saxony, Munich, and Southwest Germany.
- JOURNEY C—Italy—Lake Maggiore and Como, Milan, Verona, Venice, Florence, Pisa, Rome, Naples, Pompeii, the Ascent of Vesuvius, Puteoli, and the Italian Art Galleries.
- JOURNEY D-Holland, Denmark, Norway, Sweden, Russia, and Spain.
- JOURNEY E-Egypt, Palestine, Syria, Turkey, Greece, and India.
- JOURNEY F-England, Scotland, and the United States of America.
- JOURNEY G-The Centennial Exhibition at Philadelphia.
- JOURNEY H-The Centennial Exhibition at Philadelphia.

It has been carefully prepared, and will be found amusing, very entertaining and instructive.

It contains 218 pages, Cloth bound, Gilt. Price, \$2.

## BENERMAN & WILSON,

Photo. Publishers, Philadelphia, Penna.

## Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

EIGHT HUNDRED DOLLARS CASH will buy the only gallery in a city of three thousand inhabitants, located on river and railroad. The country is well settled all around, and no other gallery within eighteen miles. For particulars, G. P., care of N. C. Thayer, Wabash Ave., Chicago, Ill. address

An operator of temperate habits, and ten years' experience in the business in the best New York and Philadelphia galleries, is open to an engagement. Philadelphia or vicinity preferred. Terms moderate. Address

Office of the Philadelphia Photograyher.

For Sale .- A movable frame, one-story photograph gallery, got up in the best style, north top and side lights, 15 x 25 feet. Now established and doing a fair business in a town near Philadelphia. Price, complete, \$400; without apparatus, \$250. Address Н. Н.,

Care Benerman & Wilson, Philadelphia.

FOR SALE .- The only photograph rooms in a thriving business manufacturing town of seven thousand inhabitants. Rooms neat and convenient, splendid north light. Rent, \$150; inventory, \$950; price, \$700, cash. My health requires me to quit the business. Only those who mean business need address for particulars,

C. H. TOWNSEND, Lock Box 22, Southbridge, Mass.

THE stock and fixtures of a good gallery in Frenchtown, N. J. No opposition; population of town, 1500; nearest gallery sixteen miles; good location. Reception and operating rooms on second floor. Established 1850. reasonable going to retire. For further partic-J. BUTLER, Frenchtown, N. J. ulars, address

TO PHOTO. STOCK-DEALERS. Situation wanted. The undersigned has been with the largest stockhouse in the West for the last seven years, having had full charge of the stock and order department. Can sell in the house or on the road. I want a position; what can you offer? Address

H. G. THOMPSON. 443 Warren Ave., Chicago.

FOR SALE. - New gallery! Building and everything necessary to make all kinds of pictures. Price, \$1200. Can show receipts to have been \$2000 past year. Reason for selling, going to South America. Must be sold soon. Call at "NEW GALLERY,"
Palmyra, N. Y. or address

WANTED .- A first-class ink and water color artist, lady preferred. To the right person a permanent situation can be given. References given and required. Send specimens. No answer to postal cards. Address

> GEO. W. MORRIS, Photographer, Lawrenceburg, Anderson Co., Ky.

GALLERY FOR SALE at Mahanoy City. MUST be Sold. Cost over \$600. Population over 8000. Write for particulars and then offer.

> Address C. S. ROSHAN, 1206 Taney St., Philada.

Or, C. S. Wells, Mahanoy City, Pa.

#### SEAVEY'S NEW SPECIALTIES IN BACKGROUNDS AND ACCESSORIES.

Seavey's Winter Landscape. Per sq. ft., 25 cts. No. 81 with Damask Center and Rennaissance. Three backgrounds combined. Exhibited at the Centennial. Per square foot, 30 cents. Liennard Cabinet. Per square foot, 30 cents.

#### LATE ACCESSORIES.

Papier-Mache Fire-Place and Cabinet combined. A new, elaborate, and superior accessory. Price, \$40.

Papier-Mache Antique Venetian Chair. Copies of highly carved originals. Price, \$12.

Papier-Mache Vases. For use with Kurtz's Balustrade. Large size, \$5. Small size, \$4.

SEAVEY'S SCENIC STUDIO,

8 Lafayette Place, N. Y.

MAMMOTH CAMERA FOR SALE .- Holmes, Booth & Hayden tube of largest size, central stops, and first-class in every respect. Cost \$450. Box, one of Anthony's best, double swing-back, seven feet extension, carries plates from 8x10 to 18x22. Cost \$90. Is in excellent order. The whole will be sold for \$240 if applied for immediately. Worth double the amount.

J. H. KENT, 58 State St., Rochester, N. Y.

FOR SALE .- Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

BENERMAN & WILSON, Apply to

Publishers Philada. Photographer.

PIANOS AND ORGANS .- Photographers wishing to buy a Beatty Piano or Organ, can get extra inducements through photographing. Address DANIEL F. BEATTY, Manufacturer,

Washington, N. J.

## USE WAYMOUTH'S VIGNETTE PAPERS.

Office of WILSON, HOOD & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876.

Centennial Photo, Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are Very truly.

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmayer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless " lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

> Very respectfully yours, EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. -W., H. & Co.

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

C. SEAVER, JR.

#### PORTRAIT LENSES AT THE CENTENNIAL. | WAYMOUTH'S VICNETTE PAPERS.

THE GORHAM STOVE .- No photographer can get more for his dollar than by investing in a "Gorham Stove.". It is tiny in size but a giant in usefulness. See advertisement.

> WILSON, HOOD & Co., 822 Arch Street, Philadelphia.

BURREL'S CHART AND HINTS TO PATRONS .-Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

SITUATION WANTED .- By a capable man of fifteen years' experience in the leading stockhouses of New York and Boston. Can command a good trade. Well posted in buying and selling. Address TAFT,

Care of Philadelphia Photographer.

#### THE ROBINSON TRIMMER.

RICHMOND, IND., August 11, 1875.

MR. EDW. L. WILSON.

DEAR SIR: I feel as though I should say a few words in praise of the Robinson Trimmer and Guides I received from you. The trimmer does its work admirably, do not know how I should do without it; and the round-cornered guides, for cards, is something new, and makes the picture look much neater when compared with the old square cut kind, from a glass pattern.

The guides, all sizes, are the nearest perfect of any I ever used. But what I wish to request of you in particular is, to publish in your Journal the right way for sharpening the trimmer, I am certain this will be looked for by a great many with interest. I have used mine now constantly for some time, and it does not need it yet; but, in case it does, would not like to spoil it with any experimenting. Yours respectfully,

M. WOLFE.

#### HERMACIS LENS TESTIMONIAL.

Philadelphia, March 21, 1876.

Messrs. WILSON, HOOD & CO.

I take pleasure in testifying to the perfect working of the "Hermagis" just purchased from you. We have tested it particularly as to its depth of focus, and find it to combine with this a rapidity of working which makes it doubly es-Very respectfully, teemed.

> WM. CURTIS TAYLOR. 914 Chestnut Street.

USE WAYMOUTH'S VIGNETTE PAPERS.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it."

Риотоскарніс Hall .-- The four sizes of electrotypes of Photographic Hall, are as follows:  $1\frac{1}{4} \times 2 \text{ in.}, 2 \times 3\frac{1}{4} \text{ in.}, 4 \times 6 \text{ in.}, 4\frac{1}{2} \times 7\frac{1}{4} \text{ in.}$  See cut on next page. For sale by

> CROSSCUP & WEST, 702 Chestnut Street, Philadelphia.

#### WAYMOUTH'S VICNETTE PAPERS.



Риотоскарніс Hall .- Electrotypes of Photographic Hall, four sizes, from the above up to the size in February, 1876, number of this magazine. For prices apply to

CROSSCUP & WEST, Seventh and Chestnut Sts. Or, BENERMAN & WILSON, Philadelphia.

LUCKHARDT'S ELEGANT STUDIES .- We have just received an invoice of splendid studies of the female figure, by Fritz Luckhardt, Vienna. size, 8 x 10; the price, \$3.50. Order quick!
Wilson, Hoon & Co.,

822 Arch Street, Philadelphia.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

By a good retoucher, can print. Speaks Englsih and German. High salary no object. Bro. Masons, F. & A., are especially requested to pay attention to this. Address Photo., 423 Brown Street, Philadelphia.

By an operator of seven years' experience, or would run a gallery on shares. Address Edward, Box 391, Burlington, N. J.

By a young man of seven years' practical ex-perience; understands all different branches, as retoucher preferred. Good reference and salary moderate. Address C. C. Snydam, San Antonio,

Any first-class gallery wanting an operator, can be put in correspondence with one of the best in the country by addressing E. W. N. S., Office of the Philadelphia Photographer, Philadelphia.

As printer and toner, thoroughly posted in that branch of photography. Salary not so much an object as steady employment. Refer-ences given if required. Address Lock Box 32, C. M. H., Brantford, Ontario.

By a first-class photographer. He has had eight years' experience, and can undertake any branch of the business. He prefers to remain in Philadelphia. Refers to the Centennial Photographic Co., or to leading city establishments. Address H. B. Hansbury, 4119 Lancaster Ave., West Philadelphia.

By a lady of long experience, in a reliable gallery; good retoucher and printer, can assist in operating. Willing to accept a moderate salary. References from former employers. Address C. H. C., No. 2 Raynor Place, North Clinton Street, Syracuse, N. Y.

By a good operator; sixteen years' experience, Understands Autotype and Lambertype well. having practiced in England with the Autotype Company. The use of a first-class landscape apparatus included, if required. Address R. W. Anderson, 427 Youge St., Toronto, Canada.

Will connect myself with a first-class gallery, as operator or retoucher; or would buy the right place. Address Operator, Lock Box 1896, Biddeford, Me.

By a young man of steady habits, as printer and toner in a gallery in Philadelphia, or some town in Pennsylvania. Seven years' experience. No Sunday work. Address, stating terms, C. H. Hoffman, 315 Market St., Wilmington, Del.

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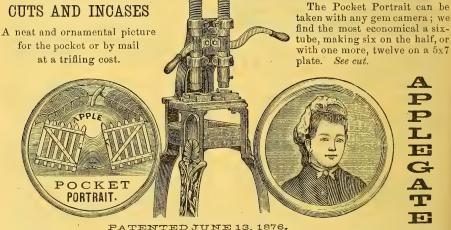
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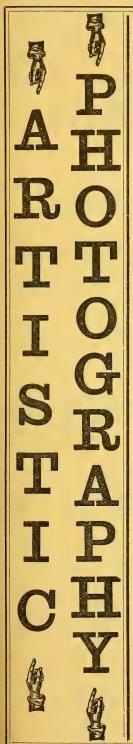
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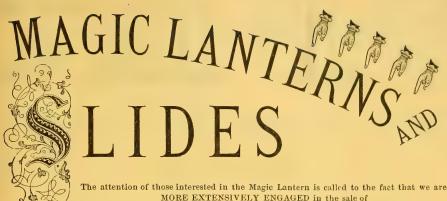
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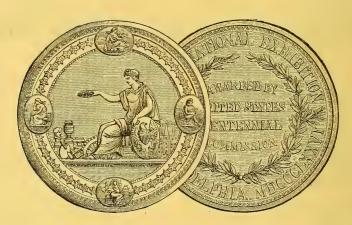
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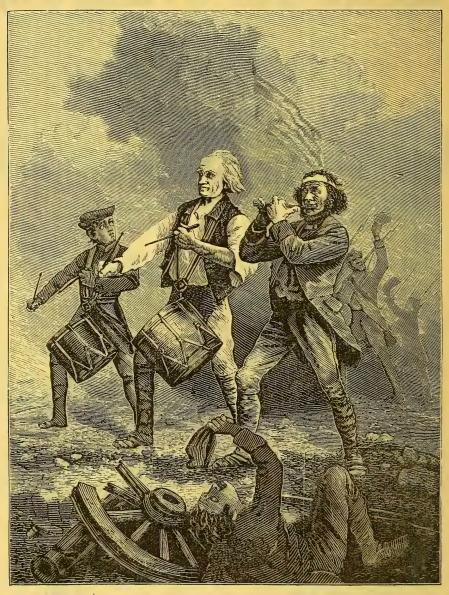
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# PHOTOGRAPHIC CARDS AND CARD BOARDS,

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IMPERIAL CARDS.

Size,  $6\frac{7}{8} \times 9\frac{7}{8}$ .

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Size,  $5\frac{1}{4} \times 8\frac{1}{2}$ .

White, Gray, Granite-Blue, Pearl, Amber, Tea.

Plain; also, with Gilt Borders, and with Gilt or Red Beveled Edges.

See detailed advertisement in this number of the "Photographic Times."

PRICE LISTS FURNISHED ON APPLICATION.

## HEARN'S STUDIES IN

## ARTISTIC PRINTING.

By the Author of the "Practical Printer," and Proprietor of Hearns' Photographic Printing Institute.

It is the aim of the author to make this new effort a source of profit to all who may peruse it; therefore he has embellished the work with SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES, from negatives made expressly for this object, by Messrs. Rocher, Bigelow, Kent, and Baker.

These negatives are pronounced by all who have seen them as ranking among the very best that these artists in photography have ever made, being faultless in pose as well as in

lighting and chemical manipulation.

Great care has been taken by the author to make a careful selection of the photographs illustrating this book, so that each copy would have, as the title implies, studies in every branch of albumen paper printing, and whether he has succeeded or not, he leaves to the judgment of its readers.

As in a former work, the varied formulæ and processes of manipulation were discussed in detail, it has been thought advisable that in this the subject should be treated with more

conciseness. Will be ready the second week in February.

Mailed, post-paid, on receipt of \$3.50 by any Dealer, or CHARLES W. HEARN,

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## USENER'S LENSES

FOR

## PORTRAITS.

These Lenses are first-class in every respect, and are favorites with those who are familiar with their merits.

#### THE SIZES AND PRICES ARE AS FOLLOWS:

	1 / 0170	control	ctoma	foons 41 :	nobos						<b>ው</b> ባደ	00
	1-4 Size,			focus 41 i							<b>Φ</b> 40	UU
	1-3			5							30	00
	1-2	4.6	"	5} & 6	6.6						40	00
Ex.	1-2	6.6	11	$6\frac{1}{2}$	44					,	50	00
				7							75	
	4-4 size,	central	stops,	focus 8 ir	ches,						80	00
				11							150	
Ex.	4-4 B.	. 44	6.6	14	44			 			165	00
	8-4 .	"	66	18	4.6						250	
Mai	mmoth,	"	4.5	22	"						<b>40</b> 0	

We are willing to give buyers an opportunity of trying these lenses or comparing them with others, and will send them on trial to reliable parties.

FOR SALE BY

BENERMAN & WILSON,

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## FIRST EDITION ALMOST EXHAUSTED!

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## PRACTICAL PRINTER

## PHOTOGRAPHIC PRINTING

ON PLAIN AND ALBUMEN PAPER, AND ON PORCELAIN.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create **REFORM** in this

It is the hope of both author and publishers to create **REFORM** in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

#### CONTENTS.

#### INTRODUCTION.

The Printing Room, with a Plan. The Silvering and Toning Room, with a Plan. The Drying Room, with a Plan.

#### PART I.—ALBUMEN PAPER PRINTING.

The Positive Bath for Albumen Paper. Silvering the Albumen Paper. Drying the Paper. Fuming the Paper. Preservation of Sensitive Albumenized Paper—Washed Sensitive Paper. Cutting the Paper. The Printing Boards. Keeping Tally. Vignette Printing Blocks. Treatment of the Negatives before Printing. Filling of the Boards. Fitting Vignette Boards to the Negatives for Printing. Medallion and Archetop Printing. Fancy Printing. Vignette Cameo and Medallion Vignette Cameo Printing. Printing the Bendann Backgrounds. Printing Intense Negatives. Printing Weak Negatives. A Few More Remarks about Printing—Treatment of Broken Negatives. Cutting the Prints. Washing the Prints. Actidifying the Prints. Toning Baths. Artistic Toning. Fixing Baths and Fixing Prints. Washing the Prints. Finishing the Prints.

#### PART II.—PLAIN PAPER PRINTING.

Salting the Paper. Positive Baths for Plain Salted Paper. Silvering Plain Salted Paper. Drying, Fuming, and Cutting the Paper. Treatment of the Negatives before Printing. Printing-in False Backgrounds. General Plain Paper Printing. Further Treatment of the Prints after Printing. Causes of Failures in Albumen and Plain Paper Printing.

#### PART III .- PORCELAIN PRINTING.

Selection of the Porcelain Plates. Cleaning of the Porcelain Plates. Albumenizing the Porcelain Plates. Making the Porcelain Collodion. Coating, Fuming, and Drying the Plates. Porcelain Printing Boards. Placing the Sensitive Plate on the Board for Printing. Printing Vignette Porcelains. Printing Medallion Percelains. Washing the Porcelains. Toning the Porcelain. Fixing the Porcelain. Final Washing of the Porcelain. Drying and Tinting of the Porcelain. Varnishing the Porcelain. Causes of Failures in Porcelain Printing.

Together with over 50 Wood Cuts, and an elegant Cabinet Portrait, from negatives by Mr. F. Gutekunst, printed by the author, Mr. Chas. W. Hearn.

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## Guides,

FOR USE WITH THE ROBINSON PRINT-TRIMMER.

(See advertisement of Trimmer opposite.)

These Guides are made of Stout Iron and are turned in a Lathe, so that they are Mathematically True.

OVAL, ROUND, ELLIPTIC, and SQUARE, of all sizes; various shapes for Stereoscopic work, Drug Labels, etc., etc.

We have the following regular sizes always on hand at 10 cents per inch the longest way of the aperture, the fractions counting as one inch.

Special sizes made to order at 15 cents per inch the longest way of the aperture.

#### REGULAR SIZES:

	OVALS.		SQUARE	OR ROUND-COL	RNERED.
$2 \times 2\frac{7}{8}$	$3\frac{1}{2} \times 4\frac{7}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$	$2\frac{1}{16} \times 3\frac{3}{4}$	$2\frac{5}{16} \times 3\frac{7}{8}$ •	$3\frac{7}{8} \times 5\frac{1}{4}$
$2\frac{1}{8} \times 3\frac{1}{8}$	$3\frac{5}{8} \times 5\frac{1}{8}$	6 x 8	$2\frac{1}{8} \times 3\frac{3}{4}$	$2\frac{3}{4} \times 4\frac{1}{4}$	$4 \times 5\frac{5}{8}$
$2\frac{1}{8} \times 3\frac{1}{4}$	$4 \times 5\frac{3}{8}$	$6\frac{1}{4} \times 8\frac{1}{4}$	$2\frac{1}{8} \times 3\frac{1}{8}$	$2\frac{3}{4} \times 4\frac{1}{2}$	$4\frac{1}{8} \times 5\frac{7}{8}$
23 x 33	4⅔ x 6⅔	$6\frac{1}{2} \times 8\frac{1}{2}$	$2\frac{5}{16} \times 3\frac{15}{16}$	$2\frac{7}{8} \times 4\frac{5}{8}$	$3\frac{7}{8} \times 6$
$2\frac{5}{8} \times 3\frac{5}{8}$	5 x 7	7 x 9	$2\frac{5}{16} \times 3\frac{3}{4}$		$4 \times 6\frac{1}{8}$
0 0			FOR	STEREOGRA	PHS.
$2\frac{7}{8} \times 4\frac{1}{4}$	$5\frac{1}{4} \times 7\frac{1}{4}$	$7\frac{1}{4} \times 9\frac{1}{4}$	Arch Tops.	Round Cornered.	Round.
3 <del>3</del> x 4 <del>8</del>	$5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$	$3\frac{1}{16} \times 3\frac{3}{4}$	$3\frac{1}{16}$ x $3\frac{3}{4}$	3 x 3
$3\frac{8}{8} \times 4\frac{5}{8}$	$5\frac{5}{8} \times 7\frac{5}{8}$	$7\frac{3}{4} \times 9\frac{3}{4}$	3 x 3	3 x 3	

The above sizes suit the Collins Card Mounts, and photographers knowing that they can be always had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

An allowance of ten inches (\$1 worth) of regular sizes of guides will be given with every Trimmer purchased. (See opposite page).

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IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING PHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGAL TLY THAN A KNIFE.

#### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

A Trimmer and Ten Inches of Guides Mailed for \$3.50.

Oil the wheel bearings with Sewing Machine Oil.

## Given Away!

## WITH EACH ROBINSON PHOTOGRAPH TRIMMER

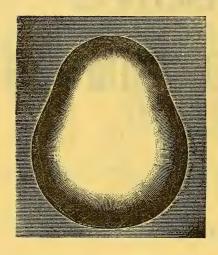
WILL HEREAFTER BE GIVEN Ten Inches of Metallic Guides, your choice from the regular sizes named on the opposite page. The manufacturers and agents finding that they can save money by manufacturing in large quantities, make this liberal offer to the trade, as they want everybody to have these capital inventions in use. They are no humbug and are not glass cutters or anything like them.

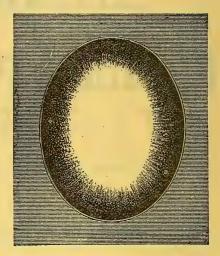
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FOR SALE BY ALL DEALERS.

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## VIGNETTING PAPERS

ARE NOW MADE OF TWO SHAPES, as shown in the drawings above. They consist of finely gradated, lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest, and best means of producing vignette pictures ever offered.

## RECENTLY IMPROVED.

The quality of the "papers" has just been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a letter from one of them, Mr. Ormsby, who has sent us also some exquisite vignettes:

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send them all that shape.

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#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

"First-class."—"The sample sent answers perfectly."—"I consider them first-rate articles."—
"They answer the purpose admirably."—"They are the best vignettes I have ever had, and as you can print in full sunlight, they are a great saving of time."—"They could not be better, oblige me with another packet."—"I find them excellent, giving much softer pictures than the old way."—"I have tried one of the Vignette Papers, and like it much; send me packets two and three."—"I am much pleased with them, and shall thank you to send me another packet."—"I did not need any copies of testimonials, having well-known by experience that your Vignette Papers were superior to anything I have ever used."—"I found those you sent before excellent."—"Vignetting Papers received and tested; can't be beat. I use by cutting an opening in a piece of cardboard and tacking to the printing-frame, when I am ready for printing vignettes in the very best manner."—"Waymouth's Vignette Papers I have tried, and they are just what I have been wanting for years."

Any number sent on receipt of price, by any stockdealer, or by

BENERMAN & WILSON, Manufacturers,

(See opposite page.)

PHILADELPHIA.

DO YOU USE

# WAYMOUTH'S VIGNETTE PAPERS.

(DESIGNS COPYRIGHTED.)

of all pictures, the Dinnette is the most artistic.

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

## WAYMOUTH'S VICNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE, AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

#### THEY NEED BUT ONE ADJUSTMENT TO PRINT ANY QUANTITY.

They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Whole-size, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

#### PRICES:

In parcels containing one of	each size. Nos.	1 to 15, assorted colors	\$1 00
Assorted sizes and colors, by	number, per p	ackage of fifteen	1 00
	sizes and color		ozen 50
" 6, 7, 11, 12, and 13 "		Large Cartes and Victorias, b	y number, per doz 75
" 8, 9, 10, 14, and 15 "	44 . 46	Cabinets and Whole-size,	1 00
" 16, 17, and 18, "	41 41	Half " "	" … 1 25

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

BENERMAN & WILSON, Manufacturers, 116 N. 7th Street, Philada.

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## MOST POPULAR BOOK PUBLISHED!

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## SECOND EDITION.

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By Prof. H. VOGEL, Ph.D., Berlin, Prussia.

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How the Ateliers are built and used in Berlin and elsewhere;

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How to select and use your Lenses;

How to manage your Apparatus;

How to compose the Picture;

How to pose the Sitter;

How to choose Accessories;

How Berlin Cards are Made;

How to do everything in the Art.

## TEACHES HOW TO BECOME A PERFECT PHOTOGRAPHER.

The whole includes, under one cover, everything needed for the practice of photography by the beginner, the amateur, and the professional—a complete Handbook. See contents of Book.

The engravings are numerous, elaborate, and expensive. Four photographs, illustrating the lighting of the subject, accompany the work. Please read future advertisements

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# PROMENADE PRIZE PICTURES.

JULY COMPETITION.

To enable all photographers to study these

## GEMS OF ART,

We offer prints from the competing negatives, for sale at the prices below.

They are the most exquisite things we ever offered, and will teach any one, be he a good or poor operator.

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Was awarded for the best six negatives to Mr. Henry Rocher, Chicago, Ill., whose pictures are marvels of beautiful photography. The studies are all mounted in tasteful style, on Collins' Mounts, and printed at our own rooms by Mr. Chas. W. Hearn, and are fine studies in posing, lighting, printing, and toning.

#### THE SETS INCLUDE:

Nos.	1	to	7.				Studies by	H. Rocher, Chicago.
"	81	to	16,				44	L. G. Bigelow, Detroit, Mich.
"	17	to	22,				64	I. W. Taber, San Francisco, Cal
44	23	to	27,				"	C. M. French, Youngstown, O.
46	28	to	31,				"	Core & Frees, Tiffin, O.
**	32	to	37,				ac.	E. M. Collins, Oswego, N. Y.
"	38	to	42,				44	J. H. Folsom, Danbury, Conn.
44	431	to	48,				4.6	E. H. Alley, Toledo, O.
CI-	. D			ž	A -	 	 b 702.5	7-J-1-1:- Dhalamantan mana 949

The whole set	of 48	3,									**		. ;	\$12	00
In two Photo.	Cove	ers,					:							13	50
Selections, per	doze	n,.							1		٠			4	00
" per	two	doz	er	1,							41.1			7	00
The 21 of Mess	rs. Ro	che	r,	B	ige	lo	W	, 8	an	d'	Га	be	er,	6	00
Book · Covers a	nd B	indi	nç	ſ,			. '								75

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We have just received from the Centennial Exposition the following ROSS LENSES. They are the IDENTICAL Lenses for which Messrs. Ross & Co. received the "Centennial Medal and Diploma."

							PRICE.
One No. 2,	Cabinet Le	ns, .					157 50
One " 3,	46 61			•		 	175 50
One $3\frac{1}{4} \times 4\frac{1}{4}$	Rapid Syr	nmetric	al, .				36 00
One 4 x 5		44					38 25
One 4 x 74	~ 11	44					47 25
One 5 x 8	44	66					51 75
One $6\frac{1}{2} \times 8\frac{1}{2}$	4.6	44					58 50
Two No. 1,	Portable	**				each,	27 00
Two No. 2,	44	1 44				11	29 25
Two No. 3,	11	6.1				44	31 50
Two No. 4.	4.6	6.6				44	36 00
Two No. 5,	"	**				**	45 00
Two No. 6.	44	6.6				44	54 00
Two No. 7,	6.6	11				4.6	63 00
One No. 8.	44	11.					72 00
Two No. 9.	44	4.5				each,	81 00
Two No. 10	o, "	4.4				66	90 00

One Leather Case, containing one each of the Ross Portable Symmetrical, from No. 1 to No. 10 inclusive, all fit in same flange, list value \$550—will sell for \$450. For eash with order for any of above, will allow a discount of FIVE per cent. Complete price lists on application

By steamer "Vaderland" we have completed our stock of **STEINHEIL LENSES**, and can now offer the following:

Three Pairs I	No. 1, Apla	ana	tic,				. pe	er pair,	\$50 00
Three Pairs 1	No. 2,	6.6			٠.,			. 44	60 00
Four No. 3,	Aplanatic,							each,	45 00
Four No. 4,	4.6			•*				H j	60 00
Three No. 5,	44					٠.		44	70 00
Three No. 6,	44						1.4	44	110 00
One 18 x 22,	4.4	W	7ide	Angl	е,				200 00
One 20 x 24,	44		66	4.4					350 00

For cash with order, we will allow a discount of FIVE per cent. on any of the Steinheil Lenses. We shall not receive any more for some time, so solicit your early orders.

Yours,

WILSON, HOOD & CO.,

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PHOTOGRAPHIC CHEMICALS, strictly pure and of full weight.

CROSS-SWORD DRESDEN ALBUMEN PAPER, Single and Extra Brilliant.

EVAPORATING DISHES.

GERMAN SOLID GLASS BATHS.

PORTRAIT LENSES-C. F. Usener's Celebrated.

The largest and most reliable house for Refining Waste and Residues.

## The Universal



## EMBOSSING PATENTED JANUARY 9th, 1872.

This Press will cameo all sizes, from cards to cabinets, and is sold lower than any other that will do the same work. It has been greatly improved and made very complete in all its parts.

We furnish a card, victoria, and cabinet size.

## PRICE, \$20.00.

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## WILSON, HOOD & CO., 822 Arch St., Philadelphia.

CAUTION.—Photographers are cautioned against buying other presses that may use an elastic embossing substance, as they are an infringement on the above.

R. J. Сните, Patentee.

# G. GENNERT,

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IMPORTER OF THE CELEBRATED

# S. & M. DRESDEN ALBUMEN PAPERS

SINGLE OR EXTRA BRILLIANT.

This paper has been imported by me to the great satisfaction of Photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO,

Hyposulphite of Soda,
Sulphate of Iron,
Solid German Glass Baths,
Saxe Evaporating Dishes,
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Porcelain Trays.

## FERROTYPE PLATES.

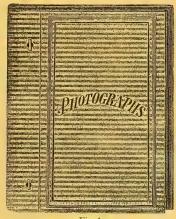
I ALSO IMPORT EXTRA BRILLIANT

**CROSS-SWORD PAPER.** 

SAMPLES CIVEN ON APPLICATION.

## IMPROVED

## PHOTOGRAPH COVERS.





The Outside Appearance,

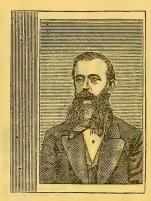


Fig. 2.

A Leaf Showing the Guard.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

## IT SERVES ALL THE PURPOSES OF AN ALBUM, FOR

A Series or a Set of Portraits,
A Series or a Set of Landscapes,
A Series or a Set of Photographs of any kind,

#### MAY BE NEATLY AND CHEAPLY BOUND IN THESE COVERS.

They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. Fig. 1 represents the cover, with the perforations in the back, through which the spreading clasps of the paper fastener bind the whole together. These are so easily inserted or removed, that pictures are readily put in or taken out at any time. Fig. 2 represents the picture, with the guard pasted on ready for insertion. The arrangement is simple, and we are sure will be readily comprehended. For binding together views of your town or city, or portraits of celebrities, they are very neat

The following is a list of sizes and prices, without cards:

For Photograp Card Siz Cabinet	e,				\$1.50				\$10.00
EXTRA HEAVY		-							
5-8 Size		Ţ,			4.50		,	۰.	33.00
4-4 66	,				6.00				40.00
8-10 "									
11-14 "									

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price. Send for some.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh Street, Philadelphia.

## JAMES F. MAGEE & CO.

MANUFACTURERS OF

PURE

## PHOTOGRAPHIC CHEMICALS,

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Stock Dealers only Supplied.

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24 Winfield Place, Philadelphia.

C. W. HEARN, Proprietor.

## BENJ. FRENCH & CO.,

319 Washington St., Boston,

IMPORTERS AND SOLE AGENTS FOR THE CELEBRATED

# Voigtlander & Son Darlot LEWSES,

## NEW STEREOSCOPIC LENSES.

New Stereoscopic Tube and Lens, made expressly for us, marked with our name (imitation Dallmeyer), with rack and pinion, central stops, for portraits or views. Will work in or out of doors. Also, for instantaneous pictures. Four inch focus, **price per pair**, **\$21.00.** By taking out back lens, and using only front lens in place of back, you get six inch focus. The great and increasing demand for all these lenses, is sure guarantee that they are the best. Read the following

## Testimonials.

"I have tried the Mammoth Voigtlander you sent me, and I consider it the best large instrument I have ever seen, and I have tried those made by other makers, Dallmeyer's included, and they do not compare with the Voigtlander. All my baby pictures were made with half-size Voigtlander lenses."—J. LANDY, 208 W. Fourth St., Cincinnati, Feb. 25, 1874.

"The Voigtlander lenses have always been favorites with me. My first experience, in the days of daguerreotype, was with one, since which I have owned and tried many of the different sizes and never saw one but was an excellent instrument. Lately again trying some for my own use and for a friend, I found them to be superior to other eminent makers, particularly in the large sizes."—W. J. Baker, Buffalo, N. Y.

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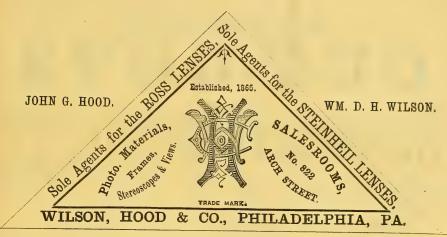
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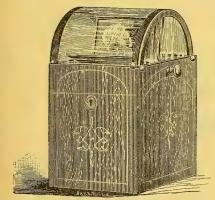
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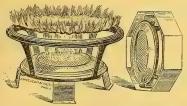
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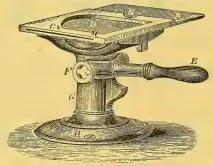
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2296—Agricultural Hall, Spanish Section.
2299—Machinery Hall, from East Gallery.
2300—Arbor of Plows—Agricultural Hall.
2301—Brown, Westhead, Moore & Co.'s Exhibit.
2302—Russia Hut—Agricultural Hall.
2303—Laplander and Reindeer—Agricultural Hall.
2303—Laplander and Reindeer—Agricultural Hall.
2307—Norwegain Peasants—Main Building.
2317—Origin of our Flag—Trophy in east end M. B.
2321—Argentine Section, Main Building.
2322—Oregon Section, Agricultural Hall.
2323—Chinese Annex, Main Building.
2329—Egyptian Section, Main Building.
2330—Egyptian Camel Saddle.
2331—Michigan Section, Agricultural Hall.
2332—Shoe and Leather Building.
2333—Shoe and Leather Building.
2334—Shoe and Leather Building.
2334—Shoe and Leather Building.
2335—Religious Figures—Belgian Section.
2337—French Religious Figures.
2348—Park's Statuary.
2349—Dying Elk.
2350—Soda Water and Automatic Fountain.
2351—Battle of Birds and Beasts.
2362—Swedish Peasants.
2364—English Tapestries.
2365—Carved Models, Swiss Cottages.
2366—Ornamental Swiss Carvings.
2367—Swiss Carving, Cattle Piece.
2388—Naval Display—Russian Sect., Machinery Hall.
2388—Naval Display—Russian Sect., Machinery Hall.
2388—Naval Display—Russian Sect., Machinery Hall.

## A LARGE REDUCTION

Has been made in our prices since last season, on our miscellaneous stock, and we are now selling at the following low figures:

							PER DOZ.					
French Slides,	٠	•	٠	٠			<b>\$7.50</b> .		**	٠	٠	\$60.00
English Slides,							6.50 .	, 4			**	50.00
Scotch and Irish Slides,		•				٠	9.00		1.			70.00
Woodbury Slides,							7.50 .			٧,	4	60.00
Kilburn Slides,							7.50 .			٠.		60.00
Burstadt Slides,					÷		<b>7</b> .50 .			•	•	60.00
American Statuary,			٠,				6.50 .		•			50.00
Comic Slips,					7	5 c	ents each.		\$8.	00	pe	r dozen.

Also a great variety of Chromatropes, etc., at different prices. Give us a call, for we are sure we can fill your orders to the

best advantage.

## BENERMAN & WILSON,

116 North Seventh Street, Philadelphia.

## E. L. EATON'S PHOTOGRAPHIC STOCK HOUSE,

No. 238 Farnham Street, Omaha, Nebraska.

TO THE TRADE. Having a full supply of Photographic Materials of all description, I can furnish Photographers with stock at Chicago prices, being a saving of four days' time and express charges of five hundred miles,

P. S.—Being a practical Photographer, and doing a heavy business in that line, I can always furnish goods that can be relied upon.

E. L. EATON.

## GLACE! GLACE!

J. DE BANES, 872 Broadway, N. Y., finishes Photographs of all sizes, for the trade, in the newest styles. Send in your orders early.

#### G. SAUTER.

No. 138 South Eighth Street, Philadelphia,
MANUFACTURER AND WHOLESALE DEALER IN

## PASSEPARTOUTS.

The attention of the trade is particularly called to the superior quality of our Glass and materials and neatness of finish. A large assortment constantly on hand.

## ART ALBUM

\_\_\_OF\_\_\_

## STEEL ENGRAVINGS.

This is a collection of twelve beautiful plates, reproduced from the London Art Journal, by the Photo-Engraving Co., of New York. They consist of the following subjects:—

The Letter-Writer of Seville,

The Crossing-Sweeper,

The Royal Princesses of George III.,

She Skein-Winder,

The Spanish Sisters,

A Rest on the Hill,

The Fair Correspondent,
Barthram's Dirge,
Children Going to School,
Peep-o'-Day Boys' Cabin,
The Scanty Meal,
The Amazon.

These are studies well worthy the attention of all photographers who are trying to improve their art-knowledge. These plates are 8 x 10 in size, on fine tinted paper, with ample margins. The Album is sent, post-paid, on receipt of ONE DOLLAR.

For Sale by

## BENERMAN & WILSON,

116 North Seventh St., Philadelphia, Pa.

## PROMENADE ALL! HERMAGIS'

Celebrated French

## PORTRAIT LENSES.

CABINET SIZE, ARE JUST THE LENS FOR THE NEW

## PROMENADE PICTURE.

MR. Henry Rocher, the renowned Chicago photographer, says of them: "In my opinion they are truly lenses of great capacity, and must surely satisfy every purchaser." Mr. Rocher has purchased two Hermagis lenses of card size and one Salomon style. See further splendid testimonial from Mr. Rocher in Specialties.

MR. F. GÜTEKUNST, the celebrated Philadelphia photographer, was sent a Salomon Lens to try for us, and wont part with it. It cuts sharp a 9 inch standing figure, and beats a lens that has been his favorite many years, and where many makes of lenses have failed, on trial, to equal it.

## The HERMACIS IS THEREFORE AHEAD

TRY THEM!

These celebrated lenses, are used by MONS. ADAM SALOMON, of Paris, exclusively for making his **WORLD-RENOWNED PORTRAITS**, and by the most famed photographers of Europe, from whom Mons. Hermagis has the Highest Testimonials.

We now have a FULL STOCK on hand.

The Salomon Style, 8 x 10 size, \$160.

For Cabinet Size, extra quick, \$100.

For Cabinet Size, quick, \$90.

For Carte Size, extra quick, \$50. For Carte Size, quick, \$40.

They are being introduced in America steadily, and are liked wherever they go.

They will be sent on trial to responsible parties C. O. D., and instructions to Express Company to hold money one week for trial. If parties prefer to see the work of a lens before purchasing, we will make a negative and send with details of exposure, etc., and reserve the lens until answer is received (if the time is reasonable), on receipt of \$1 to pay cost. Having a skylight of our own we are enabled to do this.

Not a single person to whom we have sent these Lenses on trial, as above, has returned them.

## BENERMAN & WILSON,

116 North Seventh Street, Philadelphia, Pa.

## Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \*\* We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

FOR SALE CHEAP. —A good photograph gallery well furnished, located in Lawrence, Mass. A good chance for some one. Gone into other busi-H. B. ROBIE, ness, reason far selling.

Lawrence, Mass.

MISS C. A. THORNDYKE solicits work in water calors, and India ink, on albumen or plain paper. Orders filled on short notice, and painting firstclass. Address, till April first, (New No.) 477 Euclid Ave., Cleveland, Ohio.

FOR SALE .- A first class gallery in Springfield, Illinois, for one-third of its value. Population about 30,000. Prices, \$4 for cards. Good reason for selling. For further particulars, ad-H. KLINGHOLZ,

Springfield, Illinois.

FOR SALE .- A gallery situated in the very heart of Chicago. Location and appointments Two water-power elevators, rent low, will sell half interest to good party. Ad-ALFRED HALL, dress

168 & 170 East Madison St., Chicago.

Wanted.—A first-class solar printer. Apply | Or, C. S. Wells, Mahanoy City, Pa. J. C. BOOREAM & Co., 747 Broadway, New York.

Now ready for gratuitous circulation, the fifth edition of the "PHOTOGRAPHERS' FRIEND," devoted to the financial interests of photography, with announcements that touch chords vibrating through the hearts of all enlightened and progressive artists in the country. Address RICHARD WALZL,

Baltimore, Md.

FOR SALE .- A first class gallery in a place of 8000 inhabitants. Location the best in the place, easy of access, all on the second floor. Everything in good condition, doing a good business. This is a splendid chance for a good artist; do not let it go by, but write for particulars. I will sell very cheap. Satisfactory reasons for selling. Address H GARRETT.

Box 13, Canandaigua, N. Y.

J. C. BOOREAM & Co., 747 Broadway, New York City.-Solar and contract printers for the trade. Good work guaranteed. Promptness a specialty. Send for price list.

To Photo. Stock-dealers. Situation wanted. The undersigned has been with the largest stockhouse in the West for the last seven years, having had full charge of the stock and order department. Can sell in the house or on the road. I want a position; what can you offer? Address H. G. THOMPSON.

443 Warren Ave., Chicago.

GALLERY FOR SALE at Mahanoy City. MUST be SOLD. Cost over \$600. Population over 8000. Write for particulars and then offer. Address C. S. ROSHAN.

1206 Taney St., Philada.

#### SEAVEY'S NEW SPECIALTIES IN BACKGROUNDS AND ACCESSORIES.

Seavey's Winter Landscape. Per sq. ft., 25 cts. No. 81 with Damask Center and Rennaissance. Three backgrounds combined. Exhibited at the Centennial. Per square foot, 30 cents. Liennard Cabinet. Per square foot, 30 cents.

#### LATE ACCESSORIES.

Papier-Mache Fire-Place and Cabinet combined. A new, elaborate, and superior accessory. Price, \$40.

Papier-Mache Antique Venetian Chair. Copies of highly carved originals. Price, \$12.

Papier-Mache Vases. For use with Kurtz's Balustrade. Large size, \$5. Small size, \$4. SEAVEY'S SCENIC STUDIO,

8 Lafayette Place, N. Y.

FOR SALE .- Reilly's fine negatives of the Yosemite. California, Sierra Nevadas, Niagara, etc. Apply to BENERMAN & WILSON, Publishers Philada. Photographer.

USE WAYMOUTH'S VIGNETTE PAPERS.

Office of WILSON, HOOD & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876. Centennial Photo, Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmayer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were

purchased because of our preference for them. Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsoheited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. -W., H. & Co.

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876.

Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 61 x 81 as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

C. SEAVER, JR.

#### PORTRAIT LENSES AT THE CENTENNIAL. WAYMOUTH'S VICNETTE PAPERS.

THE GORHAM STOVE .- No photographer can get more for his dollar than by investing in a "Gorham Stove." It is tiny in size but a giant in usefulness. See advertisement.

> WILSON, HOOD & Co., 822 Arch Street, Philadelphia.

BURREL'S CHART AND HINTS TO PATRONS .-Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

SITUATION WANTED .- By a capable man of fifteen years' experience in the leading stockhouses of New York and Boston. Can command a good trade. Well posted in buying and selling. Address TAFT,

Care of Philadelphia Photographer.

#### THE ROBINSON TRIMMER.

RICHMOND, IND., August 11, 1875.

MR. EDW. L. WILSON.

DEAR SIR: I feel as though I should say a few words in praise of the Robinson Trimmer and Guides I received from you. The trimmer does its work admirably, do not know how I should do without it; and the round-cornered guides, for cards, is something new, and makes the picture look much neater when compared with the old square cut kind, from a glass pattern.

The guides, all sizes, are the nearest perfect of any I ever used. But what I wish to request of you in particular is, to publish in your Journal the right way for sharpening the trimmer, I am certain this will be looked for by a great many with interest. I have used mine now constantly for some time, and it does not need it yet; but, in case it does, would not like to spoil it with any experimenting. Yours respectfully,

M. WOLFE.

#### HERMAGIS LENS TESTIMONIAL.

Philadelphia, March 21, 1876.

Messrs. WILSON, HOOD & CO.

I take pleasure in testifying to the perfect working of the "Hermagis" just purchased from you. We have tested it particularly as to its depth of focus, and find it to combine with this a rapidity of working which makes it doubly esteemed. Very respectfully,

WM. CURTIS TAYLOR. 914 Chestnut Street.

USE WAYMOUTH'S VIGNETTE PAPERS.

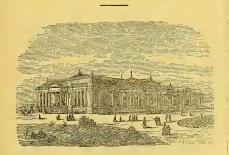
Mammoth Camera for Sale.—Holmes, Booth & Hayden tube of largest size, central stops, and first-class in every respect. Cost \$450. Box, one of Anthony's best, double swing-back, seven feet extension, carries plates from 8x10 to 18x22. Cost \$90. Is in excellent order. The whole will be sold for \$240 if applied for immediately. Worth double the amount.

J. H. KENT, 58 State St., Rochester, N. Y.

# INTENSE LANTERN SLIDES, \$5.00 PER DOZEN, \$40.00 PER HUNDRED. See Advertisement Beyond.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it."

## WAYMOUTH'S VICNETTE PAPERS.



PHOTOGRAPHIC HALL.—Electrotypes of Photographic Hall, four sizes, from the above up to the size in February, 1876, number of this magazine. For prices apply to

CROSSCUP & WEST, Seventh and Chestnut Sts. Or, BENERMAN & WILSON, Philadelphia.

LUCKHARDT'S ELEGANT STUDIES.—We have just received an invoice of splendid studies of the female figure, by Fritz Luckhardt, Vienna. The size, 8 x 10; the price, \$3.50. Order quick!

Wilson, Hoop & Co., 822 Arch Street, Philadelphia.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

By a young man, can retouch, print, and tone; would like a situation as retoucher or general assistant. Wages not so much an object as steady work. Good recommendations. Address M. C. Yates, Salem, Col. Co., Ohio.

By a young lady of several years' experience, a situation as retoucher, in a first-class gallery. The state of Massachusetts preferred. Address, Lock Box 25, Marlboro, Mass.

By a young man of good habits, with about four years' experience, as assistant printer or general assistant in a first-class gallery. Address, Worker Box 242, Skaneateles, N. Y.

In a good gallery, to operate, retouch, or print. Address, Photo., Box 24, Gouverneur, N. Y.

For an elderly German photographer, who worked for three years in this city, is perfect in all parts of the business, and can lead the same alone. Address Mr. W. Busse, 283 E. 4th St., New York City.

By an operator, who is well up in the business, and whose work will compare with that of any other in this country. Specimens furnished. Address T. H. B., Baltimore, Md.

A retoucher wishes an engagement; is capable of taking charge of an establishment. Samples of work sent to correspondents. Address W. H. C., Box 135 Tunkhannock, Pa

By a traveling man of experience in photographic stock, or would accept a position as operator. For further particulars, address Geo. W. Crosier, West Richfield, Summit Co., Ohio.

In some good gallery, or to travel with some view artist, can make himself generally useful and not afraid of work. Had three years' experience in gallery work. Wages not so much of object as situation. Address V. L. Wright, North Newry, Maine.

In a respectable establishment, by an experienced finisher in ink, oil, and water colors, of steady habits. Address, stating terms, Artist, 82 William Street, Springfield, Mass.

USE WAYMOUTH'S VIGNETTE PAPERS.

As operator by a young man who has fourteen years' experience, was employed eleven years in one room. Can furnish reference as to character, reliability, &c. Address Photographer, care of J. W. Morrison,  $10\frac{1}{2}$  6th St., Pittsburg.

By a young man twenty-four years of age, who has been in the business ten years, a situation as operator in a good gallery. Salary moderate. Specimens sent if desired. Address A. A. C., Waterbury, Conn.

A single man, thorough photographer and passably good crayon portraitist wants work. Address Box 193, Little Rock, Arkansas, care E. F. Phillips. As first-class operator and negative retoucher, can furnish recommendations and samples of work if required. Eight years' experience in the business. H. G. Hall, 118 Second Avenue, Evansville, Ind.

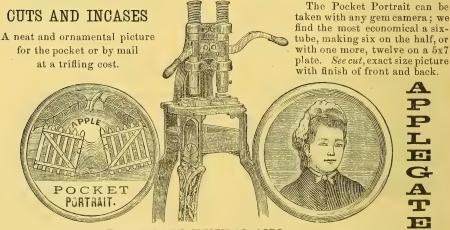
As retoucher, printer, or general assistant, capable of taking charge of gallery. Best of reference. S. B. Pyser, Jr., 29 West Jersey St., Elizabeth, N. J.

By an operator posted in all branches of the art, salary to suit the times, or will run a gallery on shares. References L. G. Bigelow, Detroit, and J. F. Ryder, Cleveland, Ohio. Address A. C. Burnham, 244 Woodward Avenue, Detroit, Michigan.



NO CARDS! NO WASTE IN MATERIAL.

## APPLEGATE'S POCKET PORTRAIT MACHINE



PATENTED JUNE 13, 1876.

During the past year upwards of 100,000 have been made at the extensive galleries of Mr. Applegate, in Philadelphia. Machines, with exclusive rights, for sale outside of Philadelphia.

J. R. Applegate, {Patentce and Sole Agent for {Cor. Vine & 8th Sts., Philada.

The exclusive rights of Boston, Springfield, Worcester, Mass.; Providence, R.I.; Atlanta, Ga.; Chicago, Ill., and part of Bowery, New York, already sold, and several applications made for other places.

## PHOTOGRAPHER'S

POCKET

## REFERENCE BOOK.

## **ONLY A FEW COPIES LEFT!**

An Alphabetically arranged collection of practically important hints on the construction of the Gallery; selection and trial of lenses and chemicals; approved formulæ for the different photographic processes; tables of weights and measures; rules for avoiding failure, etc.

### IT IS A BOOK EVERY PHOTOGRAPHER SHOULD HAVE,

Because it is a ready helper under all difficult circumstances.

For sale by all dealers. Price, \$1.50, post-paid.

BENERMAN & WILSON, Photo. Publishers,

PHILADELPHIA, PA.

## Beautiful Gifts

For all the year round. There is no present can be made more interesting or appropriate than a choice selection of our beautiful

## Centennial Views.

We make a liberal discount to photographers from the regular prices, which are as follows:

Stereos, \$3.00 per dozen,

5 x 7, 50 cents each, or \$6.00 per dozen, 8 x 10, \$1.00 each.

13 x 16, \$2.50 each,

17 x 21, \$5.00 each.

Sent post paid on receipt of price. Special terms and catalogue sent on receipt of stamp.

Address,

BENERMAN & WILSON.

116 North Seventh St., Philadelphia, Pa.

 $_{\text{DOZEN}}^{\text{PER}}$  5.00 -  $\left\{ _{\text{DOZEN}}^{\text{PER}}\right\}$ 

LANTERN

HAVING selected from our stock about 1200 Slides that are a little too dense, and a few that have the plain glass cracked, we now offer them to photographers and others at the low rate of \$5.00 per dozen, or

## \$40 per Hundred,

And give purchasers a formula for reducing them to any transparency desired.

They embrace views in nearly all countries, and from them a fine selection can be made.

For fuller details, and a method of reducing these Slides, see the March number of the Magic Lantern.

To parties whom we know, we will send lots on selection.

S L I D E S

For Sale by BENERMAN & WILSON,

116 North Seventh Street, Philadelphia.

# PHOTOGRAPHIC PRINTING INSTITUTE.

PRINTING FOR THE TRADE.

Instructions Given in Artistic Printing.

### SEND FOR NEW PRICE LIST.

All communications should be addressed to the proprietor, at the Institute,

24 Winfield Place, Philadelphia.

C. W. HEARN, Proprietor.

## OUR NOVEMBER, 1875



## RICTURES

Our second Promenade Picture competition has just been closed, and we are in possession of some of the *finest Photographic work ever done in the world!* 

We offer prints from the competing negatives, for sale at the prices below. They are most useful to every photographer as examples of good negative work, artistic composition and lighting, and superior printing and finishing. We have done *our* part to make them *models* in every respect.

THE



Was awarded for the best six negatives to

Mr. LYMAN G. BIGELOW, Detroit, Michigan,

Whose elegant work is familiar to many of our patrons.

#### THE SETS INCLUDE:

Nos. 1 to 8—Studies by L. G. Bigelow, Detroit, Michigan.
Nos. 9 to 20—Studies by F. B. Clench. Lockport, N. Y.
Nos. 21 to 28—Studies by G. M. Elton, Palmyra, N. Y.
Nos. 29 to 34—Studies by O. P. Scott, Abingdon, Ill.
Nos. 35 to 40—Studies by E. M. Collins, Oswego, N. Y.
Nos. 41 to 46—Studies by E. H. Alley, Toledo, Ohio.

See review in December number Philadelphia Photographer.

The whole set of 46, .												\$10	00
In two Photo. Covers,										~	٠.	11	<b>5</b> 0
Selections, per dozen,												, 4	00
" per two doz	en,											7	00
The 28 of Messrs. Clen	ch,	Bi	gel	ow	, and	E	ltor	1,				6	00
Book Cover and Bindin	g,												75

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FIFTY

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## A. M. COLLINS, SON & CO.,

MANUFACTURERS OF

# PHOTOGRAPHIC CARDS AND CARD BOARDS,

OF EVERY DESCRIPTION.

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IMPERIAL CARDS.

Size,  $6\frac{7}{8} \times 9\frac{7}{8}$ .

BOUDOIR CARDS.

Size,  $5\frac{1}{4} \times 8\frac{1}{2}$ .

White, Gray, Granite-Blue, Pearl, Amber, Tea.

- Plain; also, with Gilt Borders, and with Gilt or Red Beveled Edges.

See detailed advertisement in this number of the "Photographic Times."

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FOF

## PORTRAITS.

These Lenses are first-class in every respect, and are favorites with those who are familiar with their merits.

#### THE SIZES AND PRICES ARE AS FOLLOWS:

	1-4 size,	central	stops,	focus 41 in	nches,		. •					\$25	00
	1-3	6.6	44	5	46					1		30	00
	1-2	6.6	4.6	51 & 6	4.6							40	
				$^{2}6\frac{1}{2}$								50	
	2-3	4.6	4.6	7								75	
	4-4 size,	central	stops,	focus 8 in	ches,	٠, آ				٠.		80	00
Ex.	4-4	6.6	"	11	"							150	00
ΕŔ.	4-4 B.	4.6	6.6	14	66							165	00
	8-4	44	4.6	18	4.6							250	
Mar	mmoth,	4.6	6.6	. 22	"							<b>4</b> 00	

We are willing to give buyers an opportunity of trying these lenses or comparing them with others, and will send them on trial to reliable parties.

FOR SALE BY

## BENERMAN & WILSON,

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## PRACTICAL PRINTER

## PHOTOGRAPHIC PRINTING

ON PLAIN AND ALBUMEN PAPER, AND ON PORCELAIN.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create **REFORM** in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

### CONTENTS.

#### INTRODUCTION.

The Printing Room, with a Plan. The Silvering and Toning Room, with a Plan. The Drying Room, with a Plan.

#### PART I .- ALBUMEN PAPER PRINTING.

The Positive Bath for Albumen Paper. Silvering the Albumen Paper. Drying the Paper. Fuming the Paper. Preservation of Sensitive Albumenized Paper—Washed Sensitive Paper. Cutting the Paper. The Printing Boards. Keeping Tally. Vignette Printing Blocks. Treatment of the Negatives before Printing. Filling of the Boards. Fitting Vignette Boards to the Negatives for Printing. Medallion and Archtop Printing. Fancy Printing. Vignette Cameo and Medallion Vignette Cameo Printing. Printing the Bendann Backgrounds. Printing Intense Negatives. Printing Weak Negatives. A Few More Remarks about Printing—Treatment of Broken Negatives. Cutting the Prints. Washing the Prints. Acidifying the Prints. Toning Baths. Artistic Toning. Fixing Baths and Fixing Prints. Washing the Prints. Finishing the Prints. Mounting the Prints. Finishing the Prints.

#### PART II. -PLAIN PAPER PRINTING.

Salting the Paper. Positive Baths for Plain Salted Paper. Silvering Plain Salted Paper. Drying, Fuming, and Cutting the Paper. Treatment of the Negatives before Printing. Printing-in False Backgrounds. General Plain Paper Printing. Further Treatment of the Prints after Printing. Causes of Failures in Albumen and Plain Paper Printing.

#### PART III. - PORCELAIN PRINTING.

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### FOR USE WITH THE ROBINSON PRINT-TRIMMER.

(See advertisement of Trimmer opposite.)

These Guides are made of Stout Iron and are turned in a Lathe, so that they are Mathematically True.

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We have the following regular sizes always on hand at 10 cents per inch the longest way of the aperture, the fractions counting as one inch.

Special sizes made to order at 15 cents per inch the longest way of the aperture.

#### REGULAR SIZES:

	OVALS.		SQUARE	OR ROUND-CO	RNERED.
$2 \times 2\frac{7}{8}$	$3\frac{1}{2} \times 4\frac{7}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$	$2\frac{1}{16} \times 3\frac{3}{4}$	$2\frac{5}{16} \times 3\frac{7}{8}$	$3\frac{7}{8} \times 5\frac{1}{4}$
$2\frac{1}{8} \times 3\frac{1}{8}$	$3\frac{5}{8} \times 5\frac{1}{8}$	6 x 8	$2\frac{1}{8} \times 3\frac{3}{4}$	$2\frac{3}{4} \times 4\frac{1}{4}$	$4 \times 5\frac{5}{8}$
$2\frac{1}{8} \times 3\frac{1}{4}$	4 x 5\frac{3}{8}	$6\frac{1}{4} \times 8\frac{1}{4}$	$2\frac{1}{8} \times 3\frac{1}{8}$	$2\frac{3}{4} \times 4\frac{1}{2}$	$4\frac{1}{8} \times 5\frac{7}{8}$
23 x 33	43 x 63	$6\frac{1}{2} \times 8\frac{1}{2}$	$2\frac{5}{16} \times 3\frac{15}{16}$	$2\frac{7}{8} \times 4\frac{5}{8}$	$3\frac{7}{8} \times 6$
$2\frac{5}{8} \times 3\frac{5}{8}$	5 x 7	7 x 9	$2\frac{5}{16} \times 3\frac{3}{4}$		$4 \times 6\frac{1}{8}$
$2\frac{7}{8} \times 4\frac{1}{4}$	$5\frac{1}{4} \times 7\frac{1}{4}$	7½ x 9½	FOR	STEREOGRA	PHS.
	• •	* '	Arch Tops.	Round Cornered.	Round.
$3\frac{3}{8} \times 4\frac{3}{8}$	$5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$	$3\frac{1}{16} \times 3\frac{3}{4}$	$3\frac{1}{16} \times 3\frac{3}{4}$	3 x 3
$3\frac{3}{8} \times 4\frac{5}{8}$	$5\frac{5}{8} \times 7\frac{5}{8}$	$7\frac{3}{4} \times 9\frac{3}{4}$	3 x 3	3 x 3	

The above sizes suit the Collins Card Mounts, and photographers knowing that they can be always had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

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PHILADELPHIA, PA.

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IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING PHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGANTLY THAN A KNIFE.

### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

A Trimmer and Ten Inches of Guides Mailed for \$3.50.

Oil the wheel bearings with Sewing Machine Oil.

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## WITH EACH ROBINSON PHOTOGRAPH TRIMMER

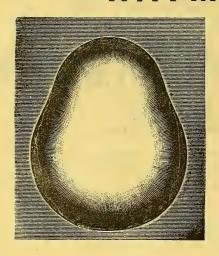
WILL HEREAFTER BE GIVEN Ten Inches of Metallic Guides, your choice from the regular sizes named on the opposite page. The manufacturers and agents finding that they can save money by manufacturing in large quantities, make this liberal offer to the trade, as they want everybody to have these capital inventions in use. They are no humbug and are not glass cutters or anything like them.

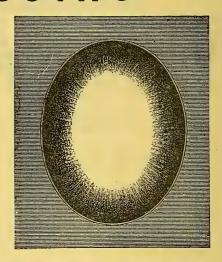
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FOR SALE BY ALL DEALERS.

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## WAYMOUTH'S





## VIGNETTING PAPERS

ARE NOW MADE OF TWO SHAPES, as shown in the drawings above. They consist of finely gradated, lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest, and best means of producing vignette pictures ever offered.

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The quality of the "papers" has just been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a letter from one of them, Mr. Ormsby, who has sent us also some exquisite vignettes:

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send them all that shape.

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#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

"First-class."—"The sample sent answers perfectly."—"I consider them first-rate articles."—
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(See opposite page.)

PHILADELPHIA.

DO YOU USE

# WAYMOUTH'S VIGNETTE PAPERS.

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of all pictures, the ### is the most artistic.

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

## WAYMOUTH'S VICNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE, AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

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They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Whole-size, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

#### PRICES:

In p	arcels containing	g one of	each size.	Nos. 1	to 15, assorte	d colors				81	00
Asso	rted sizes and co	olors, by	number,	oer pac	kage of fiftee	n				1	00
Nos.	1, 2, 3, 4, and 5,	assorted	sizes and	colors,	for Cartes, by	number, per	dozen				50
66	6, 7, 11, 12, and	13 "	44	"	Large Cartes	and Victorias,	by number,	per do:	Z		75
66	8, 9, 10, 14, and	15 . "	46	66	Cabinets and	Whole-size,	46	- 66		1	00
66	16, 17, and 18,	66	46		Half "	46	44	66		1	25

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

BENERMAN & WILSON, Manufacturers, 116 N. 7th Street, Philada.

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## DR. VOGEL'S HANDBOOK.

## SECOND EDITION.

## THE HANDBOOK OF THE PRACTICE AND ART OF PHOTOGRAPHY,

By Prof. H. VOGEL, Ph.D., Berlin, Prussia.

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How the Ateliers are built and used in Berlin and elsewhere;

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How to select and use your Lenses;

How to manage your Apparatus;

How to compose the Picture;

How to pose the Sitter;

How to choose Accessories:

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#### TEACHES HOW TO BECOME A PERFECT PHOTOGRAPHER.

The whole includes, under one cover, everything needed for the practice of photography by the beginner, the amateur, and the professional—a complete Handbook. See contents of Book.

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JULY COMPETITION.

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We offer prints from the competing negatives, for sale at the prices below.

They are the most exquisite things we ever offered, and will teach any one, be he a good or poor operator.

## THE GOLD MEDAL

Was awarded for the best six negatives to Mr. Henry Rocher, Chicago, Ill., whose pictures are marvels of beautiful photography. The studies are all mounted in tasteful style, on Collins' Mounts, and printed at our own rooms by Mr. Chas. W. Hearn, and are fine studies in posing, lighting, printing, and toning.

#### THE SETS INCLUDE:

Nos.	1	to	7,					Studies by	H. Rocher, Chicago.
46	8	to	16,					66	L. G. Bigelow, Detroit, Mich.
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66	23	to	27,					66	C. M. French, Youngstown, O.
**	28	to	31,					44	Core & Frees, Tiffin, O.
46	32	to	37,					44	E. M. Collins, Oswego, N. Y.
66	38	to	42,					44	J. H. Folsom, Danbury, Conn.
46	43	to	48,					66	E. H. Alley, Toledo, O.
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In two Pho	oto.	Cove	rs,												13	50
Selections,	per	doze	n,.							,i					4	00
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We have just received from the Centennial Exposition the following ROSS LENSES. They are the identical Lenses for which Messrs. Ross & Co. received the "Centennial Medal and Diploma."

					-		PRICE.
One No. 2, Ca	abinet <b>L</b> ei	ıs, .				\$	157 50
One " 3,	44 44					: .	175 50
One 31 x 41 F							36 00
One 4 x 5	4.6	**					38 25
One $4\frac{1}{2} \times 7\frac{1}{4}$	**	4.6					47 25
One 5 x 8	"	**					51 75
One $6\frac{1}{2} \times 8\frac{1}{2}$	6.6	44					58 50
Two No. 1, I	Portable	4.6				each,	27 00
Two No. 2,	4.4	4.6				4.6	29 25
Two No. 3,	4.6	11				6.6	31 50
Two No. 4,	4.6	44				44	36 00
Two No. 5,	"	**				6.6	45 00
Two No. 6,	44	4.6				14	54 00
Two No. 7,	6.6	**				4.6	63 00
One No. 8,	4.4	4.4					72 00
Two No. 9,	**	44				each,	81 00
Two No. 10,	**	44			. ,	44	90 00

One Leather Case, containing one each of the Ross Portable Symmetrical, from No. 1 to No. 10 inclusive, all fit in same flange, list value \$550—will sell for \$450. For cash with order for any of above, will allow a discount of FIVE per cent. Complete price lists on application.

By steamer "Vaderland" we have completed our stock of **STEINHEIL LENSES**, and can now offer the following:

Three Pairs	No. 1, Apla	nat	ic,				-	, pe	r pair,	\$50 00
Three Pairs	No. 2,	66							616	60 00
Four No. 3,	Aplanatic,	•							each,	45 00
Four No. 4,									4.6	60 00
Three No. 5,	4.5			+1				•.	. 44	70 00
Three No. 6,	4.6								4.5	110 00
One $18 \times 22$ ,	6.6	W	ide	Angle	,					200 00
One 20 x 24,	4.6		"	4.4		. •		• •		350 00

For eash with order, we will allow a discount of five per cent. on any of the Steinheil Lenses. We shall not receive any more for some time, so solicit your early orders.

Yours,

WILSON, HOOD & CO.,

No. 822 Arch Street, Philadelphia.

## CHARLES COOPER & CO.,

191 Worth Street, New York,

OFFER AT WHOLESALE:

PHOTOGRAPHIC CHEMICALS, strictly pure and of full weight.

CROSS-SWORD DRESDEN ALBUMEN PAPER, Single and Extra Brilliant.

EVAPORATING DISHES.

GERMAN SOLID GLASS BATHS.

PORTRAIT LENSES-C. F. Usener's Celebrated.

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This Press will cameo all sizes, from cards to cabinets, and is sold lower than any other that will do the same work. It has been greatly improved and made very complete in all its parts.

We furnish a card, victoria, and cabinet size.

PRICE, \$20.00.

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CAUTION.—Photographers are cautioned against buying other presses that may use an *elastic* embossing substance, as they are an infringement on the above.

R. J. Chute, Patentee.



## A NEW WORK ON

## PHOTOGRAPHY AND ART.

Promenade Photographs.

BY

## LYMAN G. BIGELOW,

Author of "Bigelow's Album of Lighting and Posing."

This is a beautifully gotten up work, and contains full instructions in every department of Photography.

Mr. Bigelow is well known as an accomplished artist and excellent teacher, and we are sure his new work will be welcomed by all who are aiming for improvement in the higher technical elements of photography.

Price, \$5.00.

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BENERMAN & WILSON,

Photo. Publishers,

116 NORTH SEVENTH ST., PHILADELPHIA.

## IMPROVED

## PHOTOGRAPH COVERS.



Fig. 1.

The Outside Appearance.

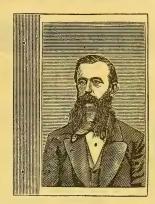


Fig. 2.

A Leaf Showing the Guard.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

### IT SERVES ALL THE PURPOSES OF AN ALBUM, FOR

A Series or a Set of Portraits,
A Series or a Set of Landscapes,
A Series or a Set of Photographs of any kind,

#### MAY BE NEATLY AND CHEAPLY BOUND IN THESE COVERS.

They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. Fig. 1 represents the cover, with the perforations in the back, through which the spreading clasps of the paper fastener bind the whole together. These are so easily inserted or removed, that pictures are readily put in or taken out at any time. Fig. 2 represents the picture, with the guard pasted on ready for insertion. The arrangement is simple, and we are sure will be readily comprehended. For binding together views of your town or city, or portraits of celebrities, they are very neat

The following is a list of sizes and prices, without cards:

0					-					
For Photogra	ph.					Per dozen.				Per hundred.
Card Siz	ze.					\$1.50				\$10.00
Cabinet										
EXTRA HEAVY	cov	ER	s.							
5-8 Size						4.50		,		33.00
4-4 66	٠.					6.00		÷		40.00
8-10 "										
11-14 "										

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price. Send for some.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh Street, Philadelphia.

## THE PHOTOGRAPHER TO HIS PATRONS.

WHAT IS IT?

HE PHOTOGRAPHER TO HIS PATRONS is a little book or pamphlet of twelve pages, the intention of which is: 1st. To enable the photographer to say a few words in a kindly way to those who have photographs taken, in order that the intercourse between them and their photographer may be pleasant and result in the most successful pictures. Every photographer knows that he is constantly beset with a lot of questions, as to the proper way to dress, the best time to come, and so on, which take a great deal of his time to answer. This little book answers them all, and the mere handing of a copy to the questioner, which he or she can carry away and study at leisure, serves as admirably as a half-hour's conversation.

2d. It is a cheap mode of advertising. What could you want better than to have your business card so attractive that people will come and ask for it, hand it around from one to another, discuss it, and then keep it for reference? This is what they do with this little "tract." Witness what those who

have tried it say below.

3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

How far the work serves these three ends the reader must judge from the testimonials below, of a

few of those who have been using our little publication in their business.

We believe it will pay you to use it, and that you will assist just that much in elevating your art and your craft, an object which we are all working for.

We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying, frames, prices, &c.

All this is inclosed in a cover of the same kind of paper, the pages of which are at the service of the photographer who orders them to have printed thereon anything he may please, which printing we do without extra charge. We publish this leaflet in English, German, and Spanish.

#### Cuts for the covers we supply free.

. . \$20 00 1000 copies, cover included, . 35 00 Over 500,000 have been sold.

### TESTIMONIALS.

"I sent one out West to a friend, and she wrote that she was now posted, and when she came here to have a picture made, she would come 'according to directions.' "-A. Bogarbus, New York.

"It assists me greatly."-JAMES MULLEN, Lexington, Ky.

"A grand idea."-ELBERT ANDERSON.

"You have conferred a great favor on the fraternity in supplying it."—A. C. McInter & Co., Ogdensburg.

"It is the best advertising medium I have ever found."-H. M. SEDGEWICK, Granville, O.

We send samples to any who may desire.

BENERMAN & WILSON, PHOTO. PUBLISHERS. 116 North Seventh Street, Philadelphia.

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319 Washington St., Boston,

IMPORTERS AND SOLE AGENTS FOR THE CELEBRATED

# Voigtlander & Son Darlot LEWSES,

## NEW STEREOSCOPIC LENSES.

New Stereoscopic Tube and Lens, made expressly for us, marked with our name (imitation Dallmeyer), with rack and pinion, central stops, for portraits or views. Will work in or out of doors. Also, for instantaneous pictures. Four inch focus, **price per pair**, \$21.00. By taking out back lens, and using only front lens in place of back, you get six inch focus. The great and increasing demand for all these lenses, is sure guarantee that they are the best. Read the following

## Testimonials.

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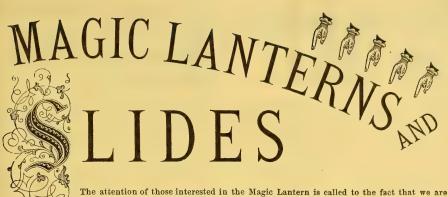
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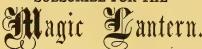
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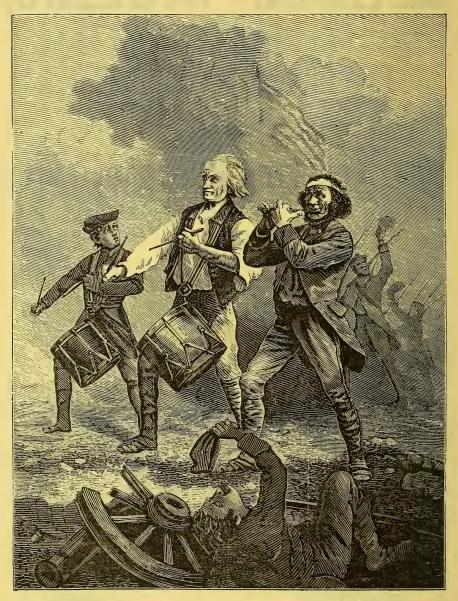
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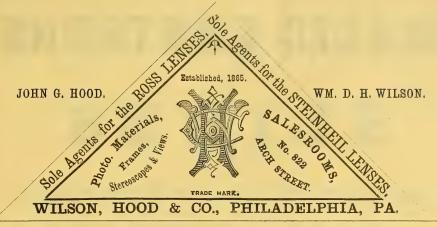
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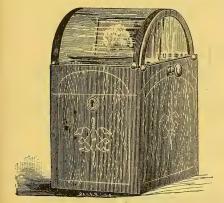
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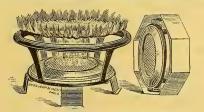
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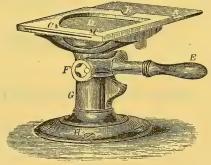
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The undersigned, at the request of many parties, has concluded to connect this branch of photography with his other trade work, and therefore has fitted up a distinct and separate department, where all kinds of Photographic Copying will be promptly attended to and in a superior manner, owing to our unusual conveniences for printing on a large scale. The advantage of such a movement will be seen by all photographers, who have only got to take the copies as they are brought in by their customers, and mail them on to the Institute, with full directions given with each distinct picture, and have their work returned to them in an expeditious manner, and at such a trifling cost as to allow 100 to 150 per cent. to themselves.

#### BENDANN AND PLAIN FALSE BACKGROUNDS.

Artistically printed in when necessary, and with as much care as in the finest portrait work.

Having secured the services of experienced retouchers, I am prepared to retouch the negatives of those copies that are not to have finished work done to them, as well as possible, under the circumstances, and to have nice albumen prints made of them. For the convenience of those sending work I will arrange to have

#### INDIA INK, OIL, OR WATER COLOR

Work done for them, to any amount from \$2 to \$100. Special arrangements made to can vassers of copies, who make a business of soliciting for work; to those parties we would say that we have facilities for making and printing one thousand copies per week, and can increase the amount of work more still, if necessary; and, consequently, can do more work for them than many others likewise situated.

SEND FOR PRICE LIST.

A Trial Order respectfully solicited.

C. W. HEARN,

Opposite 116 North Eighth Street. 24 Winfield Place, Philadelphia.

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# Manufacturing Company,

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## NEW YORK

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FOREIGN AND DOMESTIC.

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## THE AMERICAN OPTICAL CO., NEW YORK.

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In addition to our regular goods, we are agents for and offer for sale the following:

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\$1.50 each. Sent postpaid on receipt of price.

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Single, at 75 cents, \$1.25, and \$1.75 each. Lapped at \$1.25, \$2.00, and \$3.00 each.

#### CENTENNIAL PHOTOGRAPHIC CO.'S VIEWS.

All the sizes and styles that are published. Every photographer in the land who will keep a stock of these goods can sell them; thousands of them every month

#### Go East! Go West! Go North! Go South!

THEY SELL EVERYWHERE!

Stereos, \$3.00 per dozen.  $5 \times 7$ , 50 cents each.  $8 \times 10$ , \$1.00 each.  $13 \times 16$ , \$2.50 each.  $17 \times 21$ , \$5.00 each.

SEND FOR CATALOGUE.

#### ROCHER'S ARTISTIC PHOTOGRAPHIC STUDIES.

The finest specimens ever offered for sale.

Imperial Size, \$2 50 each.

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Selections, per dozen, \$4.00. The 21 of Messrs. Rocher, Bigelow, and Taber, \$6.00. The whole set of 48, \$12.00.

These are excellent studies for young or old artists. .

Dealers in Photographic Supplies would do well to keep a small stock of all of these goods on hand. Liberal discounts to the trade.

#### BENERMAN & WILSON, Photo. Publishers,

No. 116 North Seventh St., Philadelphia.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. &@ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

FOR SALE—A RARE CHANCE.—Ormsby's Studio, 309 W. Madison street, Chicago, cost over \$5000, will sell for \$3000 cash. Receipts average \$750 per month, rent only \$50 per month. If not sold by May 1st would take a competent operator as partner, as I must go West in May on important business.

Address, E. D. Ormsby, 309 West Madison St., Chicago.

Now For Sale.—One of the finest galleries in Wisconsin, long established, with best trade, no opposition, average of \$2000 per year made. Has other property which must be attended to for the next two years, otherwise would not sell. Price \$1000, part down. Business now to a good man. Reference, Gust. Bode, Milwaukee.

Address, Photographer,
Box 51, Marietta, Wis.

# INTENSE LANTERN SLIDES, \$5.00 PER DOZEN, \$40.00 PER HUNDRED. See Advertisement Beyond.

For Sale.—A new portable gallery, for less than one-half its original cost. Was made to order, and is first-class in every respect. In payment will take a good note for one or two years after date.

Address, J. N. Roof, Newton, Sussex Co., N. J.

#### FOR SALE.

#### A first-class Photo-Studio.

One of the best stands in a northwestern city, population above 100,000. Moderate competition. Dallmeyer tubes. Rent low. Want to go to Europe to settle an estate.

Apply to O. S. BLUTHARDT, 247 W. Madison St., Chicago, Ill.

For Sale.—In the town of Carey, Ohio, a photograph gallery, up one flight of stairs—with good instruments and low rent. No opposition within fourteen miles. A thriving town of 1200 inhabitants and three railroads. \$500 cash will buy it. Address, H. C. D.

Box 99, Carey, Ohio.

Wanted.—In my reception-room, a practical, thorough business, first-class sales-lady, one who has had experience and can give first-class references. Would prefer one that was a good water colorist, or inkist, more particularly on albumen paper, in card and cabinet work. To such a person a permanent situation will be given; necessarily, salary must be low during these hard times.

P.S.—Send me your photograph and terms, experience and references.

Address, C. D. Mosher & Co., 951 Wabash Ave., Chicago.

Great Sacrifice.—\$300 cash will buy a complete gallery, with large and small instruments, in a town of 3000 inhabitants, situated on the N. P. R. R., thirty-eight miles from Philadelphia, surrounded by a good farming country. Good prices and no opposition; doing a first-class business; north sky and side light. Other business requiring my attention is my only reason for selling. For further particulars address

PHOTOGRAPHER,
Box 59, Quakertown, Bucks Co., Pa.

FOR SALE CHEAP.—A first-class gallery, well furnished, situated in one of the liveliest towns in Central New York, on line of N. Y. C. Railroad. A good chance for the right person. Will be sold very cheap if disposed of soon. Address W. M. SMITH.

Ilion, N. Y.

### WAYMOUTH'S VICNETTE PAPERS.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it."

USE WAYMOUTH'S VIGNETTE PAPERS.

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876. Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co., Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmayer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. —W., H. & Co.]

Office Centennial Photo. Co., Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly. C. SEAVER, JR.

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

GALLERY FOR SALE at Mahanoy City. Must be Sold. Cost over \$600. Population over 8000. Write for particulars and then offer.

Address

C. S. Roshan, 1206 Taney St., Philada.

Or, C. S. Wells, Mahanoy City, Pa.

#### SEAVEY'S NEW SPECIALTIES IN BACKGROUNDS AND ACCESSORIES.

Seavey's Winter Landscape. Per sq. ft., 25 cts.
No. 81 with Damask Centre and Renaissance.
Three backgrounds combined. Exhibited at
the Centennial. Per square foot, 30 cents.
Liennard Cabinet. Per square foot, 30 cents.

#### LATE ACCESSORIES.

Papier-Mache Fire-Place and Cabinet combined.

A new, elaborate, and superior accessory.

Price, \$40.

Papier-Mache Antique Venetian Chair. Copies of highly carved originals. Price, \$12.

Papier-Mache Vases. For use with Kurtz's Balustrade. Large size, \$5. Small size, \$4.

Address Seavey's Scenic Studio,

8 Lafayette Place, N. Y.

#### WAYMOUTH'S VICNETTE PAPERS.

FOR SALE.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Benerman & Wilson,
Publishers Philada. Photographer



PHOTOGRAPHIC HALL.—Electrotypes of Photographic Hall, four sizes, from the above up to the size in February, 1876, number of this magazine. For prices apply to

CROSSCUP & WEST, Seventh and Chestnut Sts. Or, BENERMAN & WILSON, Philadelphia.

#### USE WAYMOUTH'S VIGNETTE PAPERS.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

As first-class printer and toner, with ten years' experience. Desires a situation in a first-class gallery. Address Photographer, Box 401, Fulton, N. Y.

By a young lady, as photo. retoucher. Address Lock Box 25, Marlboro, Mass.

A good operator open for engagement; can retouch and print; 15 years' experience in good galleries; reference furnished. Address Operator, care Pullman, 935 Pennsylvania Avenue, Washington, D. C.

By a young man of temperate habits, in a first class gallery. Is a first-class negative retoucher, printer, operator, and ink artist. Would take charge of a small gallery if desired. Good references given. Address, J. A. Bunch, Peoria, Illinois.

As printer and toner. First-class reference. Address W., care of O. B. De Morat, No. 2 South Eighth Street, Philadelphia.

As operator or in dark-room, or anything else. Nineteen years' actual experience. Best of reference. Address C. S. R., Jr., care of J. Haworth, 626 Arch Street, Philadelphia.

By a young man of steady and industrious habits. Several years' experience in the business. Has been working at photo-mechanical printing, and has a knowledge of carbon printing. H. Webb, Markoe and Seneca Streets, West Philadelphia. Reference, John Carbutt, 624 North 24th Street, Philadelphia.

In a photographic gallery, by a young lady who can furnish good references. Would prefer reception-room, or a situation as retoucher. Would have no objections to both if in a small gallery. Has a knowledge of every branch of the business, having had six years' experience. Would take a situation in any branch of the business if necessary. Address Photo., 124 Clarence Street, Ottawa City, Ontario.

By a young man, willing to make himself generally useful, as retoucher or assistant printer, either in New York, Massachusetts, or Jersey State. Reference given and specimen of retouching shown. Address Adolphus, 93 Hicks Street, Brooklyn, N. Y.

By a young man who has had a little experience, and who desires to become acquainted with the business. Will work in a gallery six months for his board alone. Address W. A. Yates, Wyanet, Illinois.

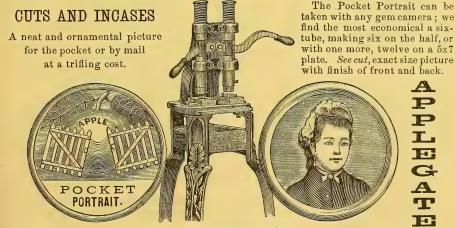
By a young lady of four and a half years' experience, as retoucher; will assist in printing and toning and attend reception-room. Good references. Desires a permanent situation, at \$10 per week. Address Miss R. W. A., Hygienic Institute, Geneva, N. Y.

A photographer of some experience desires a position as operator in a first-class gallery. Will work for competent salary, or run a room for shares. Address W. S. C., Box 33, Punxsutawney, Jeff. Co., Pa.

By a young man of short experience in the business, a situation in some good gallery where he can gain a thorough knowledge of the business and of retouching. Address, Chas. A. S., care G. G. Bosthart, Lowville, Lewis Co., N. Y.

NO CARDS! NO WASTE IN MATERIAL.

#### APPLEGATE'S POCKET PORTRAIT MACHINE



PATENTED JUNE 13, 1876.

During the past year upwards of 100,000 have been made at the extensive galleries of Mr. Applegate, in Philadelphia. Machines, with exclusive rights, for sale outside of Philadelphia.

J. R. Applegate, {Patentee and Sole Agent for Cor. Vine & 8th Sts., Philada.

The exclusive rights of Boston, Springfield, Worcester, Mass.; Providence, R.I.; Atlanta, Ga.; Chicago, Ill., and part of Bowery, New York, already sold, and several applications made for other places.

#### SECOND

## Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARVINGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

```
1. 2120—The Main Building "through the Trees."
2. 1865—Main Building, north side.
3. 2027—Main Building, transept towards northeast.
4. 2028—South Gallery of the Transept.
5. 1921—Statue, "Out in the Rain."
6. 2307—Norwegian Peasants.
7. 2387—The Clockmaker, Swedish section.
8. 2349—The Dying Elb.

50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.
52. 2226—Carved Sideboard, Spanish section.
53. 2329—Egyptian section, Main Building.

53. 2329—Egyptian section, Main Building.
54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel Saddles.
56. 2187—Pottery of the Danish section, Main Building.
57. 2165—Mammoth Japanese Vase.
58. 2017—Japanese Mirror and Bronzes.
59. 2170—Porcelain Vases, Japanese section.
60. 2175—Porcelain Ware, Japanese court.
61. 2015—Porcelain Ware, Japanese court.
62. 2167—Japanese Bronze and Silver Birds.
63. 2186—Japanese Screen and Bronzes.
64. 2193—Japanese Bronze Birds.

       8. 2349—The Dying Elk.
9. 2362—Swedish Peasants.
  9. 2002—Swedish Cramental Pottery.
10. 2041—Swedish Ornamental Pottery.
11. 2218—Porcelain Fireplace and Candelabra, Swedish
                                                               section.
   12. 2160- Victoria Court-Austrian section, Main Bldg.
13. 2214—Shell-work from the Bahama Islands.
14. 2215—Curiosities from the Gold Coast.
15. 2045—Doulton Pottery.
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.
19. 2279—Barnard's Babies and Cradles.
20. 2301—Brown, Westhead, Moore & Co.'s exhibit of Terra-cotta.
12. 2087—French section, Main Building.
12. 2282—French Bronzes.
13. 2005—French Religious Figures.
14. 2234—The Birth of Christ.
15. 1487—Carved Figures, Belgian section.
16. 2104—The Brazilian Court.
17. 2189—Brazilian Court.
   13. 2214-Shell-work from the Bahama Islands.
                                                                                                                                                                                                                                                                                                      63. 2186—Japanese Screen and Bronzes.
64. 2193—Japanese Bronze Birds.
65. 2171—Japanese Toys.
66. 2172—Japanese Toys.
67. 2121—Chinese Court, exterior.
68. 2203—Chinese Court.
69. 2128—Round Top Bedstead, Chinese section.
70. 2006—Artificial Flowers, Chinese section.
71. 2369—Seven-storied Pagoda.
72. 2323—Chinese Annex, Main Building.
73. 2007—Argentine Mineral Exhibit.
74. 2159—Gauchos and Horse Trappings.
75. 2321—Argentine section, Main Building.
76. 2219—Orange Free State Exhibit.
77. 2216—Peruvian Mummies and Pottery.
78. 2008—Chilian Mineral exhibit
  26, 2104—The Brazilian Court.
27, 2189—Brazilian Court.
28, 2188—Brazilian Court.
29, 2097—Facade, Netherlands section.
30, 2283—Netherlands Court.
31, 2285—Screen and Bronzes, Netherlands section.
32, 2365—Carved Models of Swiss Cottages.
33, 2366—Ornamental Swiss Carvings.
                                                                                                                                                                                                                                                                                                        78. 2008-
                                                                                                                                                                                                                                                                                                                                                    -Chilian Mineral exhibit
-Tunisian Court, Main Building.
                                                                                                                                                                                                                                                                                                      78. 2008—Chilan Mineral exhibit.

79. 2166—Tunisian Court, Main Building.

80. 2179—Terra-cotta, Portuguese section.

81. 2178—Terra-cotta Ware, Portuguese section.

82. 2180—Terra-cotta Ware, Portuguese section.

83. 2154—Papier Mache Figures, Portuguese section.

84. 2061—Viti's Alabaster Vases.

85. 2081—Viti's Alabaster Roman Vases.

86. 2098—Mott's Fountain.

87. 2001—United States Chemical Department.

88. 2091—United States Chemical Department.

89. 2003—Wenck & Co.'s Perfumery Stand.

90. 2100—Crystal Fountain.

91. 2156—Hertz & Co.'s Furniture exhibit.

92. 2191—American Musical Department.

93. 2011—American Book Trade Association exhibit.

94. 2317—Origin of our Flag.

95. 2043—American Glassware.

96. 2252—American Gas Fixtures.

97. 2265—American Gissware.

98. Statuary—your choice of subject.

100. 2064—View from the Reservoir.
                                                                                                                                                                                                                                                                                                         79. 2166-
   34. 2367—Swiss Carvings, Cattle Piece
   35. 2090—Mexican section, Main Building.
36. 2096—Mexican Silver Cake. Valued at $72,000.
37. 1887—The Mexican Court.
   38. 2062—Porcelain Ware, German section.
39. 1827—German Bronzes.

    39. 1827—German Bronzes.
    40. 2050—Austrian section, Main Building.
    41. 2009—Bohemian Glassware, Austrian section.
    42. 2010—Bohemian Glassware, Austrian section.
    43. 2011—Glassware, Austrian section.
    44. 2047—Glassware, Austrian section.
    45. 2131—Austrian Bent-wood Furniture.
    46. 2062—Porcelain Ware, Austrian section.
    47. 2236—Porcelain Ware, Austrian section.
    48. — Religious Plastic Figures.
    49. 2107—Russian section. Main Building.

     49. 2127—Russian section, Main Building.
```

The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy WILSON'S LANTERN JOURNEYS, with which they will be published in a future edition.

\*\*The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.—
Edw. L. Wilson and W. Irving Adams, Proprietors.

We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

## ARTISTIC PHOTOGRAPHY.

A NEW WORK on PHOTOGRAPHY and ART.

ILLUSTRATED WITH TWELVE BEAUTIFUL PROMENADE PHOTOGRAPHS.

#### By LYMAN G. BIGELOW,

Author of "Bigelow's Album of Lighting and Posing."

This is a beautifully gotten up work, and contains full instructions in every department of Photography.

Price, \$5.00.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh St., Philadelphia.

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## PHOTOGRAPH COVERS.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

#### IT SERVES ALL THE PURPOSES OF AN ALBUM.

They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener.

The following is a list of sizes and prices, without cards:

For Photograph.					Par dozan			. ,	Per hundred
Card Size,									
Cabinet Size	,				2.25				13.50
EXTRA HEAVY COVE	RS.								
5-8 Size, .					4.50				33.00
4-4 " .					6.00				40.00
8-10 " .									
11-14 "			. '		9.00	• '			65.00

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price. Send for some.

BENERMAN & WILSON, Photo. Publishers, 116 North Seventh Street, Philadelphia.

## GIHON'S CUT-OUTS

Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

PRICE, \$1.00 PER PACKAGE. Sent by mail on receipt of price.

Parties wishing special sizes, or large lots of a few sizes, may have them cut to order promptly, by addressing the manufacturer. No lot costing less than \$1.00 made at a time.

No printer should attempt to make medallion pictures without them.

#### THEY HAVE NO EQUAL FOR QUALITY.

Beware of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stockdealer for GIHON'S CUT-OUTS, and see that they are in his envelopes with instruction circular included.

PROMENADE SIZE NOW READY! SOLD SEPARATELY AT 50 cts. per dozen.

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COMPLETELY OBSCURING THE IMPERFECT BACKGROUNDS OF COPIES, RETOUCHING NEGATIVES,
FAULTY SKIES IN LANDSCAPES,
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AND FOR ANSWERING

ALL THE REQUIREMENTS OF THE INTELLIGENT PHOTOGRAPHER IN THE PRODUCTION OF ARTISTIC RESULTS IN PRINTING.

WHEREVER YOU WANT TO KEEP OUT LIGHT, USE OPAQUE.

It is applied with a brush, dries quickly and sticks.

CUT-OUTS (thirty), \$1.00.

OPAQUE, 50 CENTS.

FOR SALE BY ALL DEALERS.

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JOHN L. CIHON, Inventor,

128 N. Seventh St., Philadelphia, Pa.

# <u>CAUTION!</u> AGAINST COPYING

The VIEWS of the

## CENTENNIAL PHOTOGRAPHIC CO.

Whereas, there seems to be a disposition among certain photographers to copy and publish our Views, contrary to photographic courtesy and right, and contrary to Law, we hereby caution all persons against such action, and notify them that we are now prosecuting those who have copied our views, and shall do so with all who copy, to the full extent of the law.

#### \$100 REWARD

For the apprehension and conviction of any parties so engaged, and a liberal reward for any information against said parties.

### THE CENTENNIAL PHOTOGRAPHIC Co.,

WILSON & ADAMS, Proprietors,

Exhibition Grounds, Philadelphia.

EVERY PHOTOGRAPHER CAN SELL OUR VIEWS TO HIS CUSTOMERS.

LIBERAL DISCOUNTS. SEND FOR CATALOGUE.

#### CATALOGUE OF CENTENNIAL SLIDES.

Copied from full Catalogue of Centennial Photographic Co.-Ed. L. Wilson and W. Irving Adams, Proprietors,

```
0—Chinese Commissioners' Offices.
40—Board of Finance Building, south front.
60—Machinery Hall, from Finance Building.
64—Machinery Hall, south avenue.
                                                                                                                                                                                                                                                                                                                                                                                                                    460—Main Building—Main Avenue, from Transept.
462—Horticultural Hall, from grounds.
491—Women's Pavilion, from gallery.
                                                                                                                                                                                                                                                                                                                                                                                                                  491—Women's Pavilion, from gallery.
505—Massachusetts State Building.
534—Lansdowne Valley.
535—Centennial Grounds, from Judges' Pavilion.
537—Horticultural Building, south entrance.
541—Art Annex—Italian Department.
543—Art Annex—Italian Department.
545—Art Annex—Italian Department.
557—Log Cabin in "Ye Olden Time."
566—Memorial Hall.
599—South Avenue, from West end—Mach, Hall.
 65—Horticultural Building, S. E. forcing room.
102—Main Building, east end.
104—Main Building,—Nave.
107—Main Building—Transept.
115—Main Building—Transept.
115—Main Building—Nave, from Transept looking E.
129—Horticultural Building—S. E. forcing room.
122—Horticultural Building.
123—Machinery Hall.
126—British Government Buildings.
145—Main Building—Transept looking Northwest.
151—Agricultural Building, north avenue.
152—Agricultural Building, main avenue.
153—Horticultural Building, floral hall.
155—Main Building—Swedish Section.
158—Main Building—Transept looking Southwest.
161—Corliss Engine.
           65-Horticultural Building, S. E. forcing room.
                                                                                                                                                                                                                                                                                                                                                                                                                566—Memorial Hall.
599—South Avenue, from West end—Mach. Hall.
694—Swedish School-house.
650—New Jersey State Building, rear view.
651—The Twenty-inch Rodman Gun.
652—Main Building, west end.
656—Main Building, west side.
665—The Dying Lioness.
666—Navy Group for Lincoln Monument.
675—Dome—Memorial Hall.
678—The American Volunteer (Granite Statue).
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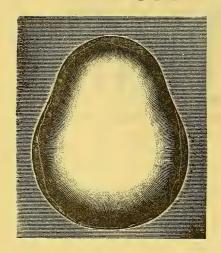
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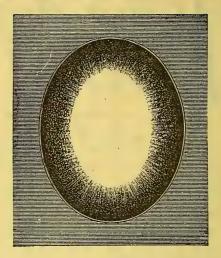
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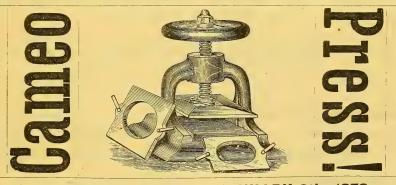
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Having received the Highest Award for Photographic Specialties, I feel more confidence than ever in offering my manufactures to the Photographic fraternity. My exhibit was an extremely modest one, being taken from stock, put up in original packages without any attempt at display, and carried off the prize over all the exhibits put up in cut glass decanters with ribbon tied stoppers, proving that the medal was awarded for MERIT ALONE!

To my many patrons, who have for years used my goods, it is only necessary to remind them that in future the same careful personal attention will continue to be paid to the manufacture of my specialties that in the past has gained for them such a world-wide reputation. To those who have not yet tried them, I respectfully request a full and fair trial, being satisfied that they will save money, trials and vexations, by casting aside unreliable articles and taking hold of mine, which are being used in many of the best galleries in the United States and Canadas.

Some of the best work shown at the exhibitions at Vienna and Philadelphia was made with my collodions, and to them some of the awards for photographs were due.

FOR SALE BY ALL STOCK-DEALERS.

ALFRED L. HANCE, 116 North Seventh St., Philada.

(READ SUCCEEDING PAGE.)

# HANCE'S PHOTOGRAPHIC SPECIALTIES.

### Hance's Bath Preservative.

A sure preventive of pinholes, stains, &c. It preserves the bath in good working condition, and will be found worth its weight in gold \$1.00 per bottle.

### Hance's Double Iodized Collodion.

The peculiarities of this Collodion are good keeping qualities, its improvement by age, and the richness of effect produced in the negative, the film being perfectly structureless.  $$1.50 ext{ per } \frac{1}{2}$ lb.$ 

### Elbert Anderson's Portrait Collodion

Is made according to the formula used by Mr. Anderson in Mr. Kurtz's gallery in New York. It is especially adapted to portrait work. \$1.75 per lb.; 90 cts. per ½ lb.

### Hance's White Mountain Collodion

Is adapted more especially to outdoor work, and for quick working, delineating foliage, frost-work, or sky, it stands unrivalled. It is made after the private formula used by that celebrated mountain artist, B. W. Kilburn, of Littleton, N. H. \$1.50 per ib.; 80 cts. per  $\frac{1}{2}$  ib.

Curtis' Niagara Falls Collodion

Is another used for landscapes. The wonderfully beautiful views made by Mr. Curtis, of the great cataract, with this collodion, have a world-wide reputation. \$1.50 per lb; 80 cts. per  $\frac{1}{2}$  lb.

## Trask's Ferrotype Collodion

Is made especially for positive pictures. Mr. Trask has no superior in this class of work, and this collodion is made after his formula. \$1.50 per tb.; 80 cts. per ½ tb.

## Hance's Peculiar Portrait Collodion

Is peculiar in that it is prepared without bromides, and is adapted for use with Black's acid bath. Formula on the bottle. \$1.50 per lb.; 80 cts. per  $\frac{1}{2}$  lb.

## Cummings' Grit Varnish

Gives a very fine surface for retouching. 40 cts. per 6 oz. bottle.

# Hance's Silver Spray Gun Cotton.

Prepared with great care, and free from acid, very soluble, gives good intensity so that no redevelopment is necessary, gives perfect detail, and a film pure and structureless. 50 cts. per oz.

## Hance's Delicate Cream Gun Cotton

Is adapted to those who like a very delicate, soft-working collodion, giving all the modelling especially in the Rembrandt style, and with light drapery. Its sensitiveness renders it particularly adapted for children, or any work that requires short exposure. 80 cts. per oz.

### Gill's Concentrated Chromo Intensifier

Is intended to strengthen the negative. It imparts a beautiful tone and gives excellent printing qualities. 50 cts. per bottle.

### Hance's Ground-Glass Substitute

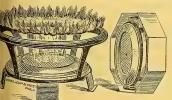
Is simply what its name implies, a substitute for ground-glass for any purpose that it is used for in the gallery—for vignette glasses, for a retouching varnish, for softening strong negatives, for the celebrated Berlin process, for ground-glass for cameras, for glazing sky and side lights, for obscuring studio and office doors, for printing weak negatives. 50 cts. per bottle.



Medal Awarded at the Centennial Exhibition for Photographic Apparatus & Accessories.



TRICES AS FULLOWS:												
For 48	ca	rds.	. 1	100 cards.			50 cab't. 100			00 cal	0 cab't.	
Velvet, ornamented Velvet, ornamented, mir-	<b>\$</b> 5	50		\$9	00		\$10	50		\$12	00	
rors in sides	7	00		10	00		13	00		14	50.	
rors in sides	6	00		9	50		12	00		13	ren	



ingraved walnut, mirrors in sides.....

# arch, HEATING STOVE.

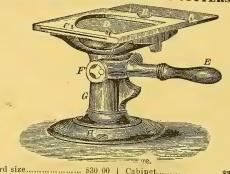
oval.

Price, \$1.00 each, by mail, post-paid.

CENTENNIAL	STATUARY,	FRAMED.
	AND ENOBAMED	

	ENAMELLED AND ENGRAVED FRAMES. P.	er de	oz
e, iı	1 41/4 x 61/2 frame, black mat, standard back	\$7	5(
11	1 0 x 9	10	50
11	18½ x 11½, 1 in. frame, black mat 12 x 15, 2½ " English mat	13	50
11	12 x 15, 2½ " " English mat	30	00

## BERGNER'S PATENT PRINT-CUTTERS.



Card size         \$30 00         Cabinet           Small sterco         30 00         4 x 4 size           Artistic sterco         33 00         4 x 7 size	
THE ENTREETH DEADLESSE	 _

Price		\$25 00 .	\$35 00	14 in. \$50 00	\$78	5 00	\$300 00
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ľ	½ in. moulding Any size, or color, of enamelled frames m	7 7	6 25
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### GLASS TRANSPARENCIES.

Assorted subjects, size o A 10	•••••••	eac	n, \$2 50
VELVET & NICKEL-PLATED	CAR	D FRA	MES.
Oval and arch-top opening		per doze	n. \$4 50

are constantly receiving new goods. Send for samples, and our new Price Lists.

WILSON, HOOD & CO., PHILADELPHIA.

# THE PHILASHOTOGRADUICE ENVELOPE.

## Cumnia

Gives a very fine surface for retouching. 40 cts.

# Hance's Silver Spray

repared with great care, and free from acid. v redevelopment is necessary, gives apper oz.

## Hance's I

to those who like in the Rembrated for

THE FLORAL BON-TONS, as above, are our latest production. They are of different designs, oval and arch openings, and put in boxes holding 250. THE No. 17 HOLDERS, printed in red, are of colors green, pink, and pearl; arch and oval openings; are well made; and in every respect good goods. We have but a limited stock on hand, and those ordering early will get the advantage of the low price of \$3.50 per 1000. We make a handsome display card, lithographed in various colors and designs, containing thirty-two openings, both arch and oval. which is sold at \$2.50, and can be bought with all our other manufactures from any Photo. Stock Dealer. (See advertisement opp. page.)

# PHILADELPHIA CARTE ENVELOPE

# NIXON & STOKES, Manufacturers.

With increased facilities, having extended our manufacture, we offer to the trade the following line of goods; each kind being numbered to facilitate ordering:

and a good , once made boing named to morning .
No. Per 1000.
- Ferrotype Envelopes.—White or buff card; red, gilt, or embossed border; Nos. 3, 4, 5, 6, 9 and 10 openings
11. Bon-ton Ferrotype Envelopes.—White or buff card; red or gilt border; arch and oval openings
12. Bon-ton Ferrotype Envelopes.—White or buff card; embossed border; arch and oval openings
13. Floral Bon-ton Ferrotype Envelopes.—Handsomely lithographed in five colors, six designs, arch and oval openings
15. Cabinet Ferrotype Envelopes.—White or buff cards; red or gilt border; arch and oval openings (3 x 4½)
16. Ferrotype Holders.—White, buff, or maroon card; red, gilt, or embossed border; Nos. 3, 4, 5, 6, 9 and 10; double card
Paper back, 2 50
17 Bon-ton Ferrotype Holders.—White, buff, or maroon card; red, gilt, or embossed border; arch and oval openings; double card
Paper back, 3 50
18. Cabinet Ferrotype Holders.—White, buff, or maroon card; red or gilt border; arch and oval openings $(3 \times 4\frac{1}{2})$ ; double card
Paper back, 9 00

Parties ordering may have their name and address printed on these Holders at the following rates:

1000, \$1.50; 2000, \$1.25; 3000, \$1.20; 5000, \$1.13; 10,000, 75c.; 15,000 and over, without charge.

The following are made entirely of fine cap paper, of various tints, and are handsomely embossed and printed in gilt:

N	0.			-										Per 1	.000.
2	20.	Cabin	et or Impe	rial E	avelo	pe	-Arch	openi	ng, pin	k pa	per, gilt			.\$15	00
			ria.—Oval												00
					flap.	emb	ossed.	oval	(white,	buff.	green, c	or pink)	)	7	50
	24.	44	"				"	arch.			""				50
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	26.		66				arch.		44	46	"	ii		. 7	50
		Gem	66				ossed,			4.6	66,	66		. 6	00
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4	28.							evi City					***************************************		

## NEGATIVE PRESERVERS.

They consist of an envelope made of strong, stout paper, one end open, and cut to admit of removing the negative, and having on one side three printed lines for the number, name, and remarks. They are put up in packages of 500 each, and cost as follows:

No.		Per 1000.	j 1		Per 1000.
1. F	or negatives	31/4 x 41/4 \$4 00	4	4. For negatives 5 x 8	\$7 50
2.	"	4½ x 5½ 5 50	8	5. " 6½ x 8½	9 00
3.		4½ x 6½ 6 50			11 50

### FOR SALE BY

A. M. COLLINS, SON & COPhiladelphia.	WM. B. HOLMES & CONew York.
WILSON, HOOD & CO""""""""""""""""""""""""""""""	GEO. S. BRYANT & COBoston.
E. & H. T. ANTHONY & CONew York.	BENJ. FRENCH & CO "
SCOVILL MANUFACTURING CO "	COLLIER & PERKINS "

# CHARLES W. HEARN'S

# PHOTOGRAPHIC PRINTING INSTITUTE.

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Opp. 116 N. Eighth Street,
PHILADELPHIA.

HEARN

ORDERS TO

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DONE FOR THE TRADE.

SEND FOR PRICE LIST.

Instructions given in all kinds of Plain and Fancy Printing,
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Etc., Etc.

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FOR THE TRADE, AT VERY LOW PRICES.

Send for complete Circulars of Printing, Copying, etc.

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If you wish your work printed in the best and latest style, send to

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# Manufacturing Company,

419 & 421 BROOME STREET,

# NEW YORK

MERCHANTS IN

# ALL ARTICLES PHOTOGRAPHIC,

FOREIGN AND DOMESTIC.

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"PEERLESS" PORTRAIT LENSES,

ENGLISH PORCELAIN WARE,

FRENCH AND ENGLISH GLASS,

ALBUMENIZED PAPER—ALL MAKES,

HANCE'S "PHOTO. SPECIALTIES,"

CENTENNIAL PHOTO. CO.'S VIEWS,

GRAPHOSCOPES, STEREOSCOPES, &c.

The Greatest Stock in the World! Dealers Everywhere Supplied Low!

# 419—BROOME——421

SCOVILL MANF'G CO., NEW YORK.



In addition to our regular goods, we are agents for and offer for sale the following:

# CHROMOS OF "YANKEE DOODLE."

\$1.50 each. Sent postpaid on receipt of price.

# ELECTROTYPES of CENTENNIAL AWARD MEDALS.

Single, at 75 cents, \$1.25, and \$1.75 each. Lapped at \$1.25, \$2.00, and \$3.00 each.

# CENTENNIAL PHOTOGRAPHIC CO.'S VIEWS.

All the sizes and styles that are published. Every photographer in the land who will keep a stock of these goods can sell them; thousands of them every month

# Go East! Go West! Go North! Go South!

THEY SELL EVERYWHERE!

Stereos, \$3.00 per dozen.  $5 \times 7$ , 50 cents each.  $8 \times 10$ , \$1.00 each.  $13 \times 16$ , \$2.50 each.  $17 \times 21$ , \$5.00 each.

SEND FOR CATALOGUE.

# ROCHER'S ARTISTIC PHOTOGRAPHIC STUDIES.

The finest specimens ever offered for sale.

Imperial Size, \$2.50 each.

Boudoir Size, \$2.00 each.

# PROMENADE PRIZE PICTURES

Selections, per dozen, \$4.00. The 21 of Messrs. Rocher, Bigelow, and Taber, \$6.00. The whole set of 48, \$12.00.

These are excellent studies for young or old artists.

Dealers in Photographic Supplies would do well to keep a small stock of all of these goods on hand. Liberal discounts to the trade.

# BENERMAN & WILSON, Photo. Publishers,

No. 116 North Seventh St., Philadelphia.

# Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. For We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Now For Sale.—One of the finest galleries in Wisconsin, long established, with best trade, no opposition, average of \$2000 per year made. Has other property which must be attended to for the next two years, otherwise would not sell. Price \$1000, part down. Business now to a good man. Reference, Gust. Bode, Milwaukee.

Address. Photographer,

Box 51, Marinette, Wis.

FOR SALE CHEAP.—A first-class gallery, well furnished, situated in one of the liveliest towns in Central New York, on line of N. Y. C. Railroad. A good chance for the right person. Will be sold very cheap if disposed of soon. Address W. M. Smith, Ilion, N. Y.

# WAYMOUTH'S VICNETTE PAPERS.

"Spring is coming!
Oh, the merry month of May!"

Now bring out your cool mountain scenes.

Ditto the sea shore, also those moss covered rocks.

"Come into the garden, Maud."

"Bring your red parasol."

"Wear your ecru hat."

"What is to be the style, Medieval, Queen Anne, Modern Gothic, or Eastlake?" Answer. All four.

For interiors it is quite certain that the latest fashionable style of house building, furnishing, and fresco decoration will be applied to photography. Therefore we announce our new modern backgrounds. Entirely unlike any ever before presented to the public. They are now in use in New York and Chicago, and will be "the rage."

For exteriors we shall present some new sea shore, garden, and mountain scenes. It affords us pleasure in stating the fact that we have received, have filled, and have in hand, orders from England, France, and Germany.

Opera Houses frescoed and supplied with stage scenery. Photographers: If a Public Hall or Opera House is being erected in your place, it will be to your interest to let us know of it. Latest first-class reference, the new Academy of Music, Scranton, Pa.

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

For Sale.—At a bargain. Extraordinary inducements for cash. My photograph gallery, not including the cameras and fixtures. No better investment for a photographer and his wife ever was offered. Right in the very elite resident part of our city. Four hotels within one block of it, and business all around it. Reasons for selling: I am going to open a new gallery  $2\frac{1}{2}$  miles from it, no other cause for selling.

Address, C. D. Mosher & Co., 951 Wabash Ave., Chicago, Ills.

FOUND AT LAST.—"Buzine."—A complete revolution in the manner of retouching negatives. No more grit, no scratching varnish. Simple, easy and never failing. Sent to any address, on receipt of \$2.00.

Address,

FRANK FRENCH,

Pecatonica, Illinois.

# WAYMOUTH'S VICNETTE PAPERS.

Wanted—A No. 1 photographer with a small capital to go in business to work on shares. The advertiser has a complete outfit. Will take a situation and furnish instruments to work on shares or salary. Address, with reference and photo. of self,

Photographer,

P. O., No. 3, Monitor, Tippecanoe Co., Ind.

Wanted.—Second-hand Portrait Leuses, 4-4, ½, and pair of matched quarters, also an Optical Company's Imperial Portrait Box in good order. Lenses must be of standard makers. State lowest cash prices.

Address.

PORTRAIT LENS, 85 Canal Street, N. Y.

FOR SALE.—One of the finest galleries in Baltimore; location unsurpassed; doing a good business, and excellent opportunities for increasing trade. Everything new and first-class. Will be sold low. Satisfactory reasons for selling. Apply to or address W. H. G.,

Care G. W. Robinson, Stock Dealer, 103 Baltimore St., Baltimore, Md.

FOR SALE.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Benerman & Wilson,

Publishers Philada. Photographer.

USE WAYMOUTH'S VIGNETTE PAPERS.

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876. Centennial Photo: Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

Wilson, Hood & Co.

Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsoheited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. —W., H. & Co.]

Office Centennial Photo. Co.,

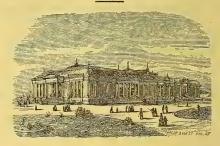
Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the  $6\frac{1}{2} \times 8\frac{1}{4}$  as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

C. SEAVER, JR.

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should he on the inside of the zinc or iron mat to cut best, and mark it."



PHOTOGRAPHIC HALL.—Electrotypes of Photographic Hall, four sizes, from the above up to the size in February, 1876, number of this magazine. For prices apply to

CROSSCUP & WEST, Seventh and Chestnut Sts. Or, BENERMAN & WILSON, Philadelphia.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

As printer and toner. First-class reference given. Address, J. M. Parks, Kewanee, Ill.

A first-class retoucher, would like negatives at home, by the piece. For samples please address, Retoucher, care of Driggs & Smith, Waterbury, Conn.

As operator or printer, wife as retoucher, seven years' experience. Address, W., care Charles Stevens, Chicago.

By a young lady as photo. retoucher in Boston or vicinity. Address, Lock Box 25, Marlboro, Mass.

As a printer, toner, and retoucher, of seven years' experience. Address, Geo. Renwick, 123 Gottingen st., Halifax, N. S.

A young lady as retoucher, also can print. Address, C. E. B., care of E. Mathews, Fort Edward, N. Y.

USE WAYMOUTH'S VIGNETTE PAPERS.

By a first-class retoucher, capable of doing first-class work. Address, Edward Vanderwalker, P. O. Box 1257, Rome, Oneida Co., N. Y.

By an experienced hand as retoucher and oil photo-miniature colorer or painter. Specimens sent. Wages reasonable. Would prefer Indiana, but would work in Ohio, Illinois, or Michigan. Address, Chas. N. Leonard, Lewisville, Henry Co., Ind.

By an operator having 8 years' experience, speaks German and English, competent to take full control of a gallery, would work on salary or on commission. Address, "Posish," care of Long C. Smith, Quincy, Ill.

By a first-class photographer as positionist, or in the dark room, or both. Can refer to some of the best galleries in the country. Address, G. W. B., Smyrna, Kent Co., Del.

In a first-class gallery, by a young man 22 years of age, as printer and general assistant, willing to make himself generally useful. Not afraid of work. Address, J. Wesley Miller, Fredricksburg, Wayne Co., Ohio.

By a smart, intelligent lad of 16, to finish his trade. Can print, tone, and retouch some. Would apprentice to a good man for three years, Address, stating terms, Apprentice, Box 341, Salem, Columbia Co., Ohio.

By a first-class retoucher and general assistant. Address for reference, etc., C. L. Dunn, care Hutchinson & Bayne, Grand Rapids, Mich.

A first-class operator and retoucher of fifteen years' experience wishes an engagement. Address W. H. C., Box 135, Tunkhannock, Pa.

As general assistant, by a young man of four years' experience in operating, retouching, and printing. Can take charge of gallery. Salary, \$10. Address Assistant, Pierce's Gallery, 474 Broad St., Newark, N. J.

As operator and retoucher; have had thirteen years' experience; thoroughly understands lighting and posing; can do any kind of picture, from life size in oil down to the smallest gem. Terms reasonable. Address O. W. Osborn, Oswego, Kansas.

As printer and toner, assistant operator, or as general assistant. Can retouch some. Good reference. Speaks English and German. High salary no object. Wishes to still improve in all branches. Address D. H. Swartz, Box 466, Lebanon, Ohio.

A first-class printer and toner, or retoucher; has had ten years' experience; desires a situation in a first-class gallery. Address Chas. E. Van, Box 401, Fulton, N. Y.

# E. L. EATON'S PHOTOGRAPHIC STOCK HOUSE,

No. 238 Farnham Street, Omaha, Nebraska.

TO THE TRADE. Having a full supply of Photographic Materials of all descriptions, I can furnish Photographers with stock at Chicago prices, being a saving of four days' time and express charges of five hundred miles,

P. S.—Being a practical Photographer, and doing a heavy business in that line, I can always furnish goods that can be relied upon.

E. L. EATON.

## GLACÉ! GLACÉ!

J. DE BANES, 872 Broadway, N. Y., finishes Photographs of all sizes, for the trade, in the newest styles. Send in your orders early.

### G. SAUTER.

No. 138 South Eighth Street, Philadelphia,

MANUFACTURER AND WHOLESALE DEALER IN

## PASSEPARTOUTS.

The attention of the trade is particularly called to the superior quality of our Glass and materials and neatness of finish. A large assortment constantly on hand.



# SECOND

# Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARV-INGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

- 1. 2120—The Main Building "through the Trees."
  2. 1865—Main Building, north side.
  3. 2027—Main Building, transept towards northeast.
  4. 2028—South Gallery of the Transept.
  5. 1921—Statue, "Out in the Rain."
  6. 2307—Norwegian Peasants.
  7. 2387—The Clockmaker, Swedish section.
  8. 2349—The Dying Elk.
  9. 2362—Swedish Peasants.
  10. 2041—Swedish Ornamental Pottery.
  11. 2218—Porcelain Firenlage and Candelabra Swedi

- 11. 2218-Porcelain Fireplace and Candelabra, Swedish section.
- 12. 2160- Victoria Court-Austrian section; Main Bldg. 12. 2160— Victoria Court—Austrian section; Ma
  13. 2214—Shell-work from the Bahama Islands.
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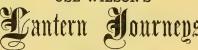
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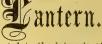
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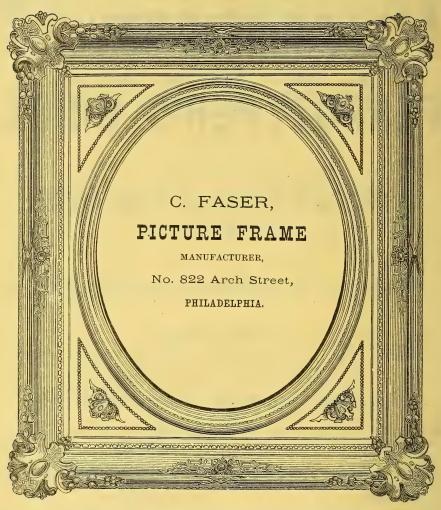
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2029—Wax Flowers and Cross.
                                                                                                                                                                                                                                                                                                                                                     2030-Italian Boy and Monkey.
                                                                                                                                                                                                                                                                                                                                                     2031-Lighthouse and Buoys.
                                                                                                                                                                                                                                                                                                                                                     2032—Doulton Pulpit.
2033—Daniel's China Court.
2034—Daniel's China Court.
                                                                                                                                                                                                                                                                                                                                                   2034—Danier's China Court.
2036—Russia Hut-Agricultural Hall.
2037—Mammoth Japanese Vase.
2038—Guns in front of Government Building.
2039—Guns in front of Government Building.
2040—Gloucester Fishing Boats.
2041—Swedish Ornamental Pottery.
                                                                                                                                                                                                                                                                                                                                                     2043—Kansas and Colorado State Building.
2045—Doulton Pottery.
                                                                                                                                                                                                                                                                                                                                                  2045—Doulton Pottery.
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2048—Glassware, Austrian Section.
2050—Austrian Section—Main Building.
2060—Vitis Alabaster Vases—Main Building.
2061—Vitis Alabaster Vases.
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2092—Woman's Pavilion.
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2214—Shellwork—Bahama Islands.
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2366—Oranental, Swiss Cottages.
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2383—Naval Display—Russian Section.
2383—Naval Display—Russian Section.
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Bierstadt Slides,				٠,					•,	7.50				· .		60.00
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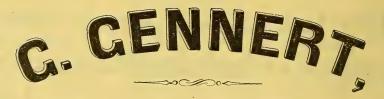
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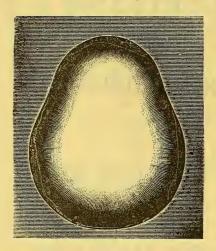
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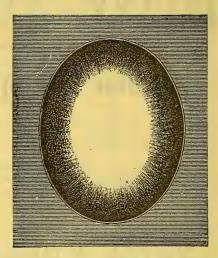
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# WAYMOUTH'S VIGNETTE PAPERS.

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of all pictures, the **Timpetty** is the most artistic.

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

How far the work serves these three ends the reader must judge from the testimonials below, of a

few of those who have been using our little publication in their business.

We believe it will pay you to use it, and that you will assist just that much in elevating your art and

We believe it win pay you to use it, and that you will assist just that indeath dividing your craft, an object which we are all working for.

We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying, frames, prices, &c.

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- JOURNEY C—Italy—Lake Maggiore and Como, Milan, Verona, Venice, Florence, Pisa, Rome, Naples, Pompeii, the Ascent of Vesuvius, Puteoli, and the Italian Art Galleries.
- JOURNEY D-Holland, Denmark, Norway, Sweden, Russia, and Spain.
- JOURNEY E-Egypt, Palestine, Syria, Turkey, Greece, and India.
- JOURNEY F-England, Scotland, and the United States of America.
- JOURNEY G-The Centennial Exhibition at Philadelphia.
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It has been carefully prepared, and will be found amusing, very entertaining and instructive.

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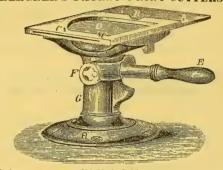
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The Lenses were made ESPECIALLY for us, and we will GUARANTEE every one of them. Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained and bear no other evidence of having been used.

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course.'') Frank F. Courrier.
Solar Work. F. B. Clench.
On the Use of Hard Rubber Bath

Holders. W. H. Sherman.

Some Observations on Backgrounds. James O. Merrill.

Working Notes for your Artist. Geo. B. Ayres.

Miscellany. Irving Saunders. Some Practical Hints. Garvey Donaldson

How to Economize in Silvered Paper. F. A. Souders.

Should Photography Furnished in Hand Painting Excel Plain Photographs? C. D. Mosher.

How to Copy Photographs. Blessing Brothers.

Mounting Prints. E. Z. Webster. Rembrandt Effects. D. H. Anderson. Getting at the Difficulty. Moulton.

Compilations, Selections, and Translations. A Compiler.

The Centennial Photographic Exhibition. Robert J. Chute.

Negative Bath that Would not Work; and a Polish for Camera Boxes. D. H. Ledbetter.

The Metric System. Allotropy. Alfred Hall. Photographic Chowder. J. E. Small. Many Mites from Many Minds.

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PHOTOGRAPHIC PUBLISHERS,

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## ALL ARTICLES PHOTOGRAPHIC,

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#### THE AMERICAN OPTICAL CO., NEW YORK.

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SOLE AGENTS FOR

MORRISON'S VIEW LENSES, "PEERLESS" PORTRAIT LENSES. ENGLISH PORCELAIN WARE, FRENCH AND ENGLISH GLASS, ALBUMENIZED PAPER-ALL MAKES, HANCE'S "PHOTO. SPECIALTIES," CENTENNIAL PHOTO. CO.'S VIEWS, GRAPHOSCOPES, STEREOSCOPES, &c.

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SCOVILL MANF'G CO., NEW YORK.



In addition to our regular goods, we are agents for and offer for sale the following:

#### CHROMOS OF "YANKEE DOODLE."

\$1.50 each. Sent postpaid on receipt of price.

#### ELECTROTYPES of CENTENNIAL AWARD MEDALS.

Single, at 75 cents, \$1.25, and \$1.75 each. Lapped at \$1.25, \$2.00, and \$3.00 each.

#### CENTENNIAL PHOTOGRAPHIC CO.'S VIEWS.

All the sizes and styles that are published. Every photographer in the land who will keep a stock of these goods can sell them; thousands of them every month

#### Go East! Go West! Go North! Go South!

THEY SELL EVERYWHERE!

Stereos, \$3.00 per dozen.  $5 \times 7$ , 50 cents each.  $8 \times 10$ , \$1.00 each.  $13 \times 16$ , \$2.50 each.  $17 \times 21$ , \$5.00 each.

SEND FOR CATALOGUE.

#### ROCHER'S ARTISTIC PHOTOGRAPHIC STUDIES.

The finest specimens ever offered for sale.

Imperial Size, \$2.50 each. Boudoir Size, \$2.00 each.

#### PROMENADE PRIZE PICTURES.

Selections, per dozen, \$4.00. The 21 of Messrs. Rocher, Bigelow, and Taber, \$6.00. The whole set of 48, \$12.00.

These are excellent studies for young or old artists.

Dealers in Photographic Supplies would do well to keep a small stock of all of these goods on hand. Liberal discounts to the trade.

#### BENERMAN & WILSON, Photo. Publishers,

No. 116 North Seventh St., Philadelphia.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. As we we cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Now For Sale.—One of the finest galleries in Wisconsin, long established, with best trade, no opposition, average of \$2000 per year made. Has other property which must be attended to for the next two years, otherwise would not sell. Price \$1000, part down. Business now to a good man. Reference, Gust. Bode, Milwaukee.

Address, Photographer,

Box 51, Marinette, Wis.

FOR SALE CHEAP.—A first-class gallery, well furnished, situated in one of the liveliest towns in Central New York, on line of N. Y. C. Railroad. A good chance for the right person. Will be sold very cheap if disposed of soon. Address W. M. SMITH, Ilion, N. Y.

#### WAYMOUTH'S VICNETTE PAPERS.

"Spring is coming!
Oh, the merry month of May!"

Now bring out your cool mountain scenes. Ditto the sea shore, also those moss covered rocks.

- "Come into the garden, Maud."
- "Bring your red parasol."
- "Wear your ecru hat."
- "What is to be the style, Medieval, Queen Anne, Modern Gothic, or Eastlake?" Answer. All four.

For interiors it is quite certain that the latest fashionable style of house building, furnishing, and fresco decoration will be applied to photography. Therefore we announce our new modern backgrounds. Entirely unlike any ever before presented to the public. They are now in use in New York and Chicago, and will be "the rage."

For exteriors we shall present some new sea shore, garden, and mountain scenes. It affords us pleasure in stating the fact that we have received, have filled, and have in hand, orders from England, France, and Germany.

Opera Houses frescoed and supplied with stage scenery. Photographers: If a Public Hall or Opera House is being erected in your place, it will be to your interest to let us know of it. Latest first-class reference, the new Academy of Music, Scranton, Pa.

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

FOR SALE.—At a bargain. Extraordinary inducements for cash. My photograph gallery, not including the cameras and fixtures. No better investment for a photographer and his wife ever was offered. Right in the very elite resident part of our city. Four hotels within one block of it, and business all around it. Reasons for selling: I am going to open a new gallery  $2\frac{1}{2}$  miles from it, no other cause for selling.

Address, C. D. Mosher & Co., 951 Wabash Ave., Chicago, Ills.

FOUND AT LAST.—"Buzine."—A complete revolution in the manner of retouching negatives. No more grit, no scratching varnish. Simple, easy and never failing. Sent to any address, on receipt of \$2.00.

Address,

Frank Frence, Pecatonica, Illinois.

#### WAYMOUTH'S VIGNETTE PAPERS.

Wanted—A No. 1 photographer with a small capital to go in business to work on shares. The advertiser has a complete outfit. Will take a situation and furnish instruments to work on shares or salary. Address, with reference and photo. of self,

Photographer,

P. O., No. 3, Monitor, Tippecanoe Co., Ind.

Wanted.—Second-hand Portrait Leuses, 4-4, ½, and pair of matched quarters, also an Optical Company's Imperial Portrait Box in good order. Lenses must be of standard makers. State lowest cash prices.

Address,

PORTRAIT LENS, 85 Canal Street, N. Y.

FOR SALE.—One of the finest galleries in Baltimore; location unsurpassed; doing a good business, and excellent opportunities for increasing trade. Everything new and first-class. Will be sold low. Satisfactory reasons for selling. Apply to or address W. H. G.,

Care G. W. Robinson, Stock Dealer, 103 Baltimore St., Baltimore, Md.

FOR SALE.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc. Apply to Benerman & Wilson,

Publishers Philada. Photographer.

USE WAYMOUTH'S VIGNETTE PAPERS.

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876.

Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsoheited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. —W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876.

Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the  $6\frac{1}{2} \times 8\frac{1}{2}$  as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

FOR THE SUMMER SEASON OF 1877.

#### Seavey's Backgrounds and Accessories.

Jewell Landscape,
From the Mountain Top,
Canandaigua Lake,
Evangeline,
Allonge Sea Shore,
Sarony " "
Seavey's Garden,
S. & F. Eastlake Interior.
Stein Parlor,
Mora Satin.

Garden Seat, No. 2,
The Mora Balustrade,
Papier-Mache Rocks—Large, Medium, and
Small,
Artificial Ivy, &c., &c., &c.

Particular attention for the coming summer is being paid to Landscape, Mountain, and Sea Shore designs, with appropriate Accessories.

Emirent Foreign Photographers, attracted by the artistic quality of our productions, are favoring us with their patronage. Samples to be immediately returned, sent on application to responsible parties.

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

From the *Photographic News*, London, Eng., April 20, 1877:

"Backgrounds as now sold here are too cheap to be good. In connection with this I cannot refrain from mentioning the name of Seavey, whom I consider at the present moment by far the finest photographic background painter living. I never yet have seen one piece of even indifferent painting turned out of his studio, all are 'O. K.' I understand that Mr. Atkinson, of Liverpool, has become his agent. If this be the case, I would advise all first-class photographers, who wish to adopt the best of everything, to see them for themselves. I know nothing personally of either gentlemen, and my advice is, therefore, 'disinterested.''

ONE day of last week the Grand Duke Alexis and friend were promenading up Broadway, when the attention of the couple was drawn to a watercolor cartoon on exhibition in a store window, and representing his Imperial Highness and favorite dog. The Grand Duke was so much pleased with it that he bade one of his attendants to discover the artist, and in his name to invite him on board the Russian flag-ship, to receive a compliment. The next day, Mr. Alberto Operti (artist at Seavey's scenic studio), the son of the leader of Booth's Theatre orchestra, was surprised with an invitation to call upon the Grand Duke. He complied with the request, and, upon introduction to his Imperial Highness, was presented with a superb gold cigarette box, with enamel ornamentations. In return, he gave the picture to the Grand Duke, who received it most C. Seaver, Jr. | eagerly. The box is valued at \$200.

USE WAYMOUTH'S VIGNETTE PAPERS.

For Sale.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Benerman & Wilson,

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

#### Wilson's Lantern Journeys. See Advertisement.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it."

#### Lantern Slides, \$5 per doz.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

As operator, general gallery work, with twelve years' experience. Wages moderate. Reference given. Address, Wm. Daud, Mill City, Wyoming County, Pa.

The undersigned, a practical photographer of considerable experience desires a position. Is a first-class poser and chemical manipulator. Address, Walter Dinmore, No. 9 S. Eighth Street, Philadelphia.

By a young lady, as reception-room attendant and general assistant in some good gallery, where a permanent situation could be had on low salary. Has run a gallery. Address, E. L. D., care of E. B. Cone, Lincoln, Illinois.

By a young man of twenty-four, as general assistant or to take charge of gallery. Experienced in operating, retouching and printing. Salary Moderate. Archie Bradley, Post-office, Philadelphia, Pa.

By a young lady of experience, to retouch negatives and finish in ink. Address, Alice Hart, 104 William Street, New Haven, Conn.

As operator in some good gallery, by a firstclass man of good and temperate habits. Can do printing, retouching, or any thing pertaining to the art. Address, Fred. H. Whitstruck, St. Peter, Minn.

By a first-class retoucher, a position in a reception-room. Specimens of work sent, and satisfactory references given. Address, Miss G. P. O. Box 266, Waterbury, Conn.

As operator or general assistant for a permanency. Fourteen years' experience in London and Provinces. Could manage a branch establishment. Good negative work. Address, W. T. Kent, 8 Main Street, Jersey City.

In a first class gallery, by a young man of three years' experience; is willing to make himself generally useful. Best of reference; address, Jno. Fickes, P. O. box 183, Steubenville, Ohio.

As Operator. First class work, from eard to 16 x 20, guaranteed. Samples sent on application. Good reference given. Address, Operator, care W. H. Roloson, Beloit, Wisconsin.

As Operator and Retoucher. Thoroughly posted in printing, and can take entire charge of gallery; has also had considerable experience in large Crayon work; terms low. Address, Archie Bradley, Post-office, Philadelphia.

Having been suffering from the rheumatism for the past six months, and being still on crutches from the effect of it, I would like a position in a gallery as retoucher; shall be relieved of crutches in two or three months, and then could help in printing or operating, as I understand the whole business. Good reference. Address, Leon Pease, Adams, Jeff. Co., N. Y.

As printer and toner; also can retouch; will operate if necessary. Sample of work sent. Address, "Carbon," care of J. S. Variell, Gardiner, Me.

As operator in a good gallery, or would not object to taking charge of a gallery; well posted in retouching and printing. Address, C. W. P., Box 58, Nebraska City, Neb.

As retoucher by a young lady, also can print. Best references furnished. Address, J. S. Variell. Gardiner, Maine.

By a young man, as operator and retoucher, also understands printing, etc., and can take charge of gallery. Address, Pierce's Gallery, 474 Broad St., Newark, N. J.

USE WAYMOUTH'S VIGNETTE PAPERS.

#### SECOND

## Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARV-INGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

```
50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.
52. 2226—Carved Sideboard, Spanish section.
53. 2329—Egyptian section, Main Building.
54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel Saddles.
56. 2187—Pottery of the Danish section, Main Building.
57. 2165—Mammoth Japanese Vase.
58. 2017—Japanese Mirror and Bronzes.
59. 2104—Potterlein Vases Laganese section.
   1. 2120-The Main Building "through the Trees."
  2. 1865—Main Building, north side.
3. 2027—Main Building, north side.
4. 2028—South Gallery of the Transept.
5. 1921—Statue, "Out in the Rain."
6. 2307—Norwegian Peasants.

7. 2387—The Clockmaker, Swedish section.
8. 2349—The Dying Elk.
9. 2362—Swedish Peasants.

    2017—Japanese Mirror and Bronzes.
    2170—Porcelain Vases, Japanese section.
    2175—Porcelain Ware, Japanese court.
    2015—Porcelain Ware, Japanese court.
    2167—Japanese Bronze and Silver Birds.
    2186—Japanese Screen and Bronzes.
    2184 2103—Propre Bronze Bronze.

 10. 2041—Swedish Ornamental Pottery.
11. 2218-Porcelain Fireplace and Candelabra, Swedish
                                       section
12. 2160—Victoria Court—Austrian section, Main Bldg.
13. 2214—Shell-work from the Bahama Islands.
14. 2215—Curiositics from the Gold Coast.
                                                                                                                                                                                          63. 2186—Japanese Screen and Bronzes.
64. 2193—Japanese Bronze Birds.
65. 2171—Japanese Toys.
66. 2172—Japanese Toys.
67. 2121—Chinese Court, exterior.
68. 2203—Chinese Court.
69. 2128—Round Top Bedstead, Chinese section.

15. 2045—Doulton Pottery.
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.

10. 2034—Barnard's Babies and Cradles.
20. 2301—Brown, Westhead, Moore & Co.'s exhibit of
Terra-cotta.
                                                                                                                                                                                                     2006-Artificial Flowers, Chinese section.
                                                                                                                                                                                          71. 2369—Seven-storied Pagoda.
72. 2323—Chinese Annex, Main Building.
73. 2007—Argentine Mineral Exhibit.
74. 2159—Gauchos and Horse Trappings.
21. 2087—French section, Main Building.
22. 2282—French Bronzes.
23, 2005—French Religious Figures.
24, 2234—The Birth of Christ.
                                                                                                                                                                                          74. 2193—Gatchios and Horse Trappings.
75. 2321—Argentine section, Main Building.
76. 2219—Orange Free State Exhibit.
77. 2216—Peruvian Mummies and Pottery.
78. 2008—Chillan Mineral exhibit
24. 2234—The Birth of Christ.

25. 1487—Carved Figures, Belgian section.

26. 2104—The Brazilian Court.

27. 2189—Brazilian Court.

28. 2188—Brazilian Court.

29. 2097—Facade, Netherlands section.

30. 2283—Netherlands Court.

31. 2245—Screen and Bronzes, Netherlands section.

32. 2365—Carved Models of Swiss Cottages.

33. 2366—Ornamental Swiss Carvings.

34. 2367—Swiss Carvings.

21. 2367—Swiss Carvings.
                                                                                                                                                                                          78. 2008—Chilian Mineral exhibit
79. 2166—Tunisian Court, Main Building.
80. 2179—Terra-cotta, Portuguese section.
81. 2178—Terra-cotta Ware, Portuguese section.
82. 2180—Terra-cotta Ware, Portuguese section.
83. 2154—Papier Mache Figures, Portuguese section.
84. 2061—Viti's Alabaster Vases.
85. 2081—Viti's Alabaster Roman Vases.
86. 2098—Mott's Fountain.
87. 2001—United States Chemical Department.
  34. 2367—Swiss Carvings, Cattle Piece
 35. 2090—Mexican section, Main Building.
36. 2096—Mexican Silver Cake. Valued at
37. 1887—The Mexican Court.
38. 2062—Porcelain Ware, German section.
39. 1827—German Bronzes.
                                                                                                                                                                                                     2001—United States Chemical Department.
2091—United States Chemical Department.
2003—Wenck & Co.'s Perfumery Stand.
2100—Crystal Fountain.
                                                                                                          Valued at $72,000.
                                                                                                                                                                                           87.
88.
                                                                                                                                                                                           89.
                                                                                                                                                                                           90.
  40. 2050—Austrian section, Main Building.
41. 2009—Bohemian Glassware, Austrian section.
42. 2010—Bohemian Glassware, Austrian section.
                                                                                                                                                                                           91. 2156—Hertz & Co.'s Furniture exhibit.
92. 2191—American Musical Department.
93. 2101—American Book Trade Association exhibit.
                                                                                                                                                                                       93, 2101—American Book Trade Association exhibits 94, 2317—Origin of our Flag.
95, 2048—American Glassware.
96, 2252—American Gas Fixtures.
97, 2265—American Ficture Frames and Statuary.
98, Statuary—your choice of subject.
99, Statuary—your choice of subject.
100, 2064—View from the Reservoir.
  43. 2011-Glassware, Austrian section.
```

The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy Wilson's Lantern Journeys, with which they will be published in a future edition.

The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.— Edw. L. Wilson and W. Irving Adams, Proprietors.

We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

49. 2127-Russian section, Main Building.

#### ANEW

## Double Objective,

OF GREAT ILLUMINATING POWER,
FOR ALL KINDS OF OUT-DOOR WORK AND GROUPS.

MADE BY

#### VOIGTLANDER & SON.

They consist of two achromatic and symmetrical combinations, between which the central diaphragm is placed. The lens is perfectly aplanatic, *i.e.*, it works with full aperture of the objectives. For the purposes of landscape photography, copying, for architectural subjects, and for groups in the studio, as well as outside, it is considered unrivalled. It is entirely free from distortion, chemical focus, and "ghosts," and the picture produced by it is mathematically correct. It is characterized by a great depth of focus and precise definition. The most important advantage of this new lens in comparison with others of similar kinds, consists in the great power of light it commands, and for this reason it is commended especially for groups, the pictures produced by it being most brilliant, also the light is spread equally all over the plate.

A very careful choice of the optical glass, of which the new lens is composed, makes it possible to secure a ratio of focus and aperture of about 6 to 1.

The width of angle embraced is between 65 and 85 degrees, according to the size of diaphragm used; as to rapidity, the new lens is more than twice as rapid as the orthoscopic lens, and only a little less than the long focus portrait lenses.

We have seven different sizes at the following prices:

No.	Di o	iamete f Lens	er s.	Eq.	uivale: Focus.	nt	Ва	ick Fo	cus.	Siz or	ze of V Lands	View cape.	Siz or	e of Gro Portrai	up t,	Pri	ce.
0,		1 in	cb,		$5\frac{1}{2}$	inch,		5 i	nch,		Ster	reo.	pic	tures.	,	\$30	00
1,		11/2	66		91/2	66		81/4	46		8 x ]	10,		6 x 8,	,	50	00
A,		13/4	46		11	46		$9\frac{3}{4}$	66		9 x	11,		7 x 9	,	57	00
2,		2	66		$12\frac{1}{2}$	66		11	66		10 x l	12,		8 x 10	١,	70	00
C,		21/2	66		16	66		14	66		13 x l	16,	l	11 x 14	,	83	00
						66											
6,		4	66		$26\frac{1}{2}$	66		$23\frac{1}{2}$	66	2	20 x 2	24,	1	17 x 20	,	225	00

#### BENJ. FRENCH & CO.,

#### HEADQUARTERS FOR THE TRADE.

Show Displayers, Velvet Stands,
Velvet Passepartouts, Velvet Cases,
Beveled Matts, Double Matts,
Fancy Metal Frames, Standard Matts,
Fancy Paper Passepartouts.

These goods are entirely of our own manufacturing. A large assortment constantly on hand; odd sizes and styles made to order.

LEWIS PATTBERG & BRO., 709 (Formerly) Broadway, New York.

#### E. L. EATON'S PHOTOGRAPHIC STOCK HOUSE,

No. 238 Farnham Street, Omaha, Nebraska.

TO THE TRADE. Having a full supply of Photographic Materials of all descriptions, I can furnish Photographers with stock at Chicago prices, being a saving of four days' time and express charges of five hundred miles,

P.S.—Being a practical Photographer, and doing a heavy business in that line, I can always furnish goods that can be relied upon.

E. L. EATON.

#### GLACE! GLACE!

J. DE BANES, 872 Broadway, N. Y., finishes Photographs of all

sizes, for the trade, in the newest styles. Send in your orders early.

#### G. SAUTER.

No. 138 South Eighth Street, Philadelphia,

MANUFACTURER AND WHOLESALE DEALER IN

#### PASSEPARTOUTS.

The attention of the trade is particularly called to the superior quality of our Glass and materials and neatness of finish. A large assortment constantly on hand.

#### BULLOCK & CRENSHAW,

No. 528 Arch Street, Philadelphia,

MANUFACTURERS AND IMPORTERS OF PURE CHEMICALS FOR PHOTOGRAPHY.

IMPORTERS OF GLASS AND PORCELAIN, APPARATUS, ETC.

#### JAMES F. MAGEE & CO.

MANUFACTURERS OF

PURE

## PHOTOGRAPHIC CHEMICALS,

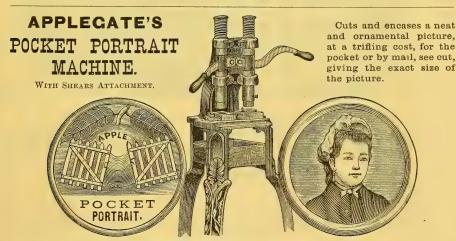
No. 108 North Fifth Street,

PHILADELPHIA

Stock Dealers only Supplied.

NEW DEPARTURE!

NO CARDS!



PATENTED JUNE 13, 1876.

IMPROVED APRIL 3, 1877.

Any Gem camera can be used; we work a six tube.  $10 \times 14$  plate makes eight cuts, each turns out six pictures, leaving no waste. Upwards of 150,000 have been made at the extensive galleries of Mr. Applegate, in Philadelphia; also in successful operation in several other cities. *Price reduced to \$45*, with room right; also, exclusive right for sale. The machine requires no skill, no practice, and very little power; a child five years old can encase the portrait. Weight of new machine about thirty-five pounds. Material furnished and machines shipped at short notice, in perfect working order; also, sample pictures sent by mail when desired.

JAMES R. APPLEGATE, Patentee and Sole Agent for the United States,

Nos. 250, 252, 254, 256, 258, 260, 262, 264 & 266 North Eighth St., Philadelphia.

## SHERMAN & CO., PRINTERS

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2092—Woman's Pavilion.
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2214—Shellwork—Bahama Islands,
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2348—Pirk's Statuary.
2348—Pirk's Statuary.
2348—Pirk's Statuary.
2348—Pirk's Statuary.
2348—Pirk's Statuary.
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2366—Carved Models, Swiss Cottages.
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Bierstadt Slides,						7.50	٠.		٠.		60.00
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Besides the necessary formulæ which should accompany standard works of all descriptions, new thoughts have been suggested by the writer, which will open, he hopes, a way for deeper research into the higher attainments of the art of photographic printing than has ever yet been attained.

Among other things, it contains suggestions in the choice of albumen paper; all the best silvering baths and methods of treating the same; new views on the relation of the silver bath to the time of floating; the different effects caused by the time of floating; how to tell when paper is floated too long or too short a time; table for time of floating paper under all circumstances; the importance of care in printing in varied ways; the important relation printing from the negative bears to the toning bath; fast printing; dialogue between "Joe" and a friend; the way to success in toning lies in printing; the different effects caused in printing by the preparation of the silver bath; the relation of the silver bath to the printing from the negative, and from this to the toning bath; acetate of silver; success or failure in toning, caused by the strength, purity, and alkalinity of the silver bath; harmony, its importance in photography; why its neglect causes such disastrous results; the beautiful in toning, and how to obtain it; a few hints about managing toning baths; formulæ for printing "Our Studies," as given under respective headings; impurities of toning baths; how it effects the toning, and how to remedy such baths; fixing and washing; brilliancy to the finished picture attained by the final washing; various and valuable hints about finishing the photographs, etc., etc.

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IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING PHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGANTLY THAN A KNIFE.

#### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

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$2_8^1 \times 3_8^1$	$3\frac{5}{8} \times 5\frac{1}{8}$	6 x 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$2\frac{1}{8} \times 3\frac{1}{4}$	$4 \times 5\frac{3}{8}$	$6\frac{1}{4} \times 8\frac{1}{4}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$
$2\frac{3}{8} \times 3\frac{3}{8}$	$4\frac{3}{8} \times 6\frac{3}{8}$	$6\frac{1}{2} \times 8\frac{1}{2}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$
$2\frac{5}{8} \times 3\frac{5}{8}$	5 x 7	7 x 9	FOR STEREOGRAPHS.
$2\frac{7}{8} \times 4\frac{1}{4}$	$5\frac{1}{4} \times 7\frac{1}{4}$	$7\frac{1}{4} \times 9\frac{1}{4}$	
$3\frac{3}{8} \times 4\frac{3}{8}$	$5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$	Arch Tops. Round Cornered. Round. $3\frac{1}{16} \times 3\frac{3}{4}$ $3\frac{1}{16} \times 3\frac{3}{4}$ $3 \times 3$
$3\frac{3}{8} \times 4\frac{5}{8}$	$5\frac{5}{8} \times 7\frac{5}{8}$	$7\frac{3}{4} \times 9\frac{3}{4}$	13 x 3 13 x 3 1

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It is without doubt the best paper now used, being very uniform in its results, and it resists the tendency to turn its color after silvering longer in warm weather than any other paper now in the market. See Send for sample dozen.

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ON PLAIN AND ALBUMEN PAPER, AND ON PORCELAIN.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create **REFORM** in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

#### CONTENTS.

#### INTRODUCTION.

The Printing Room, with a Plan. The Silvering and Toning Room, with a Plan. The Drying Room, with a Plan.

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The Positive Bath for Albumen Paper. Silvering the Albumen Paper. Drying the Paper. Fuming the Paper. Preservation of Sensitive Albumenized Paper—Washed Sensitive Paper. Cutting the Paper. The Printing Boards. Keeping Tally. Vignette Printing Blocks. Treatment of the Negatives before Printing. Filling of the Boards. Fitting Vignette Boards to the Negatives for Printing. Medallion and Archtop Printing. Fancy Printing. Vignette Cameo and Medallion Vignette Cameo Printing. Printing the Bendann Backgrounds. Printing Intense Negatives. Printing Weak Negatives. A Few More Remarks about Printing—Treatment of Broken Negatives. Cutting the Prints. Washing the Prints. Acidifying the Prints. Toning Baths. Artistic Toning. Fixing Baths and Fixing Prints. Washing the Prints. Mounting the Prints. Finishing the Prints.

#### PART II.-PLAIN PAPER PRINTING.

Salting the Paper. Positive Baths for Plain Salted Paper. Silvering Plain Salted Paper. Drying, Fuming, and Cutting the Paper. Treatment of the Negatives before Printing. Frinting-in False Backgrounds. General Plain Paper Printing. Further Treatment of the Prints after Printing. Causes of Failures in Albumen and Plain Paper Printing.

#### PART III. - PORCELAIN PRINTING.

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is to hoist a screen and project the pictures, and everybody will run and see what they have to show.

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Everybody is interested; the pictures are beautiful; they give opportunity for much instruction and entertainment, and draw full houses.

On other pages you will find lists of our slides, and we can send you the two Journey books for \$1.00, or *Wilson's* Lantern Journeys, complete, including the Centennial Journeys (describing 800 subjects) for \$2.

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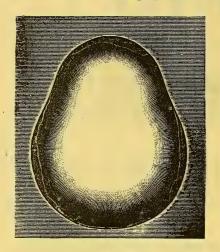
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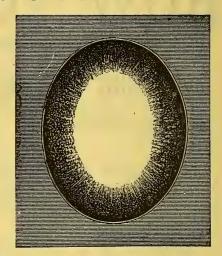
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(See opposite page.)

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CENTENNIAL, 1876.

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66	3, 4-4	6.6	7	66	4.6		45	00	6.6	7,	.18-22	4.6				200	00
6.6	48-1	0	101	4.6	6.6		60	0.0	4.6	8	.20-24	6.6				350	0.0

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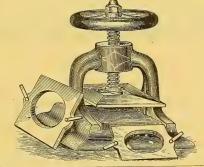
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We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying, frames, prices, &c.

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"The Voigtlander lenses have always been favorites with me. My first experience, in the days of daguerreotype, was with one, since which I have owned and tried many of the different sizes and never saw one but was an excellent instrument. Lately again trying some for my own use and for a friend, I found them to be superior to other eminent makers, particularly in the large sizes."—W. J. Baker, Buffalo, N. Y.

"Twenty-four years ago I bought and commenced using my first Voigtlander lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good. Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before."—J. F. RYDER, Cleveland, Ohio, Dec. 18, 1872.

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# WILSON'S Lantern Journeys

By EDWARD L. WILSON,

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This work will be found entertaining by all who like to read about the beautiful places and things of this world.

The contents are divided into six "Journeys," each one including a visit to 100 places, making 700 in all, as follows:

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- JOURNEY B—Compiegne, Brussels, Aix la Chapelle, Cologne, up and down the Rhine, Potsdam, Berlin, Dresden, Vienna, the Vienna Exposition, the Semmering Pass, Saxony, Munich, and Southwest Cermany.
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- JOURNEY E-Egypt, Palestine, Syria, Turkey, Creece, & India.
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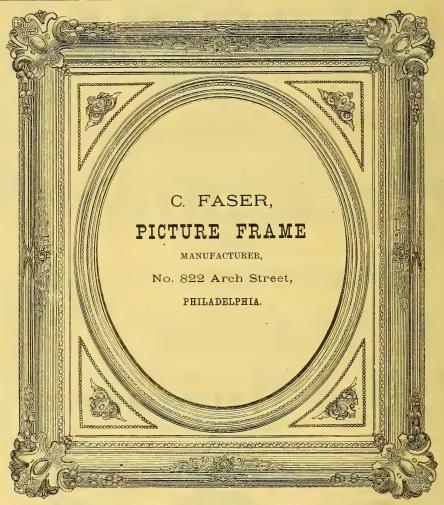
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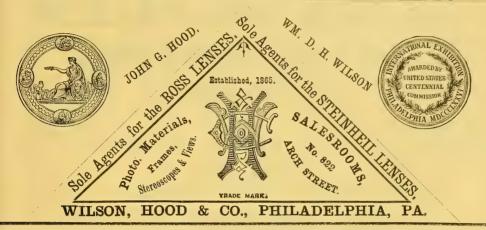
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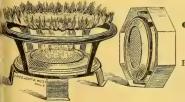
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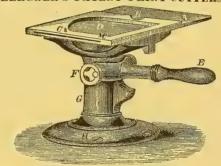
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This paper has been imported by me to the great satisfaction of Photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO.

Hyposulphite of Soda,
Sulphate of Iron,
Solid German Glass Baths,
Saxe Evaporating Dishes,
French Filter Paper,
Porcelain Trays.

#### FERROTYPE PLATES.

I ALSO IMPORT EXTRA BRILLIANT

#### **CROSS-SWORD PAPER.**

FOR SALE BY ALL STOCK-DEALERS IN THE UNITED STATES AND CANADA.

## SCOVILL

## Manufacturing Company,

419 & 421 BROOME STREET,

### NEW YORK

MERCHANTS IN

## ALL ARTICLES PHOTOGRAPHIC,

FOREIGN AND DOMESTIC.

PROPRIETORS OF THE WORKS OF

#### THE AMERICAN OPTICAL CO., NEW YORK.

S. PECK & CO., NEW HAVEN, CONN. SCOVILL MANUF'G CO., WATERBURY, CONN.

SOLE AGENTS FOR

MORRISON'S VIEW LENSES,

"PEERLESS" PORTRAIT LENSES,

ENGLISH PORCELAIN WARE,

FRENCH AND ENGLISH GLASS,

ALBUMENIZED PAPER—ALL MAKES,

HANCE'S "PHOTO. SPECIALTIES,"

CENTENNIAL PHOTO. CO.'S VIEWS,

GRAPHOSCOPES, STEREOSCOPES, &c.

The Greatest Stock in the World! Dealers Everywhere Supplied Low!

## 419—BROOME——421

SCOVILL MANF'G CO., NEW YORK.



In addition to our regular goods, we are agents for and offer for sale the following:

#### CHROMOS OF "YANKEE DOODLE."

\$1.50 each. Sent postpaid on receipt of price.

#### ELECTROTYPES of CENTENNIAL AWARD MEDALS.

Single, at 75 cents, \$1.25, and \$1.75 each. Lapped at \$1.25, \$2.00, and \$3.00 each.

#### CENTENNIAL PHOTOGRAPHIC CO.'S VIEWS.

All the sizes and styles that are published. Every photographer in the land who will keep a stock of these goods can sell them; thousands of them every month

#### Go East! Go West! Go North! Go South!

THEY SELL EVERYWHERE!

Stereos, \$3.00 per dozen.  $5 \times 7$ , 50 cents each.  $8 \times 10$ , \$1.00 each.  $13 \times 16$ , \$2.50 each.  $17 \times 21$ , \$5.00 each.

SEND FOR CATALOGUE.

#### ROCHER'S ARTISTIC PHOTOGRAPHIC STUDIES.

The finest specimens ever offered for sale.

Imperial Size, \$2.50 each.

Boudoir Size, \$2.00 each.

#### PROMENADE PRIZE PICTURES.

Selections, per dozen, \$4.00. The 21 of Messrs. Rocher, Bigelow, and Taber, \$6.00. The whole set of 48, \$12.00.

These are excellent studies for young or old artists.

Dealers in Photographic Supplies would do well to keep a small stock of all of these goods on hand. Liberal discounts to the trade.

#### BENERMAN & WILSON, Photo. Publishers,

No. 116 North Seventh St., Philadelphia.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \*\* For earnot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

FOR SALE.—At less than half cost. A globe lens 14 x 17, a superior instrument and good as new, cost \$135. Mounted on folding bed camera box with 15 x 15 inch plateholder with kits 4-4 size. Has one extra front and fine focusing screw. Will sell the whole for \$70 cash.

C. E. MEYERS,

Mohawk, N. Y.

#### Lantern Slides, \$5 per doz.

Large Roller Presses For Sale.—Chilled iron rollers twenty inches long and nine inches diameter, with connecting adjustable gearing. A magnificent machine in perfect order and for sale low. Also another of same style, rollers twelve inches long and four inches diameter. For prices, apply to Benerman & Wilson,

Philadelphia.

#### Wilson's Lantern Journeys. See Advertisement.

For Sale.—A spacious gallery having six rooms for family, all for \$40 a month, which might be reduced half or more. Location, A, 1. Cash receipts \$70 to \$100 a week. Everything nearly new, clean, and in good order. This is a good chance. Illness makes a change of business absolutely necessary. Price, \$2000. Address,

J. W. Denslow,

Chicago, Illinois.

#### Hance's Photograpaic Specialties. See Advertisement.

Wanted.—An operator competent to produce the finest work for a first-class gallery in Philadelphia. Address, with specimens of work and particulars. "Superior,"

Office Philadelphia Photographer.

#### WAYMOUTH'S VICNETTE PAPERS.

For Sale.—A first-class gallery of long standing in a large and wealthy town in Pennsylvania. Cause, death of the owner. Apply

THOS. H. M'COLLIN,

Photographic Materials, 624 Arch St., Phila.

FOR SALE.—A good gallery doing a good business. No competition. Population, 6000. Water and Gas. Finest climate in the U.S. Full line of instruments. Write for particulars to

IRA F. COLLINS.

Huntsville, Alabama.

#### Hance's Photographic Specialties. See Advertisement.

FOR SALE REASONABLE.—The best located gallery in Lebanon, Pa. A county seat with a population of 10,000, surrounded with a rich farming country. Seven furnaces in blast within five miles. A good top and side light without outside obstruction. In short, the right place for a good live operator. For further particulars, address.

BYRON CUMMINGS,

Lebanon, Pa.

#### WAYMOUTH'S VICNETTE PAPERS.

For Sale.—One of the best arranged photograph galleries in Iowa. Only gallery in town of 3000 inhabitants. No competition within twelve miles. Past years' receipts twenty-three hundred dollars. Long lease and low rent. Will sell outfit complete, or gallery without instruments. For particulars, address,

J. W. MILLER,

Anamosa, Iowa.

FOR SALE, CHEAP.—A first-class gallery, recently refurnished, doing a good business, located in one of the best towns in Central New York; low rent; will be sold for one-half its value; good reasons for selling. For particulars, address, W. M. Smith,

Ilion, N. Y.

FOR SALE.—One of the leading galleries in the city of St. Louis. Most conveniently arranged. Ground floor (store) reception-room. North sky and side lights. Centrally located. First-class reputation. Best patronage. This is a rare chance for any one who desires a first-class establishment at a moderate price. Good reason for selling. For particulars, address,

HALLWIG & Co.,

627 Olive St., St. Louis, Mo.

USE WAYMOUTH'S VIGNETTE PAPERS.

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear-Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. —W., H. & Co.

Office Centennial Photo. Co., Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splen-In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly.

C. SEAVER, JR.

FOR THE SUMMER SEASON OF 1877.

#### Seavey's Backgrounds and Accessories.

Jewell Landscape,
From the Mountain Top,
Canandaigua Lake,
Evangeline,
Allonge Sea Shore,
Sarony " "
Seavey's Garden,
S. & F. Eastlake Interior.
Stein Parlor,
Mora Satin.

Garden Seat, No. 2,
The Mora Balustrade,
Papier-Mache Rocks—Large, Medium, and
Small,
Artificial Ivy, &c., &c., &c.

Particular attention for the coming summer is being paid to Landscape, Mountain, and Sea Shore designs, with appropriate Accessories.

Eminent Foreign Photographers, attracted by the artistic quality of our productions, are favoring us with their patronage. Samples to be immediately returned, sent on application to responsible parties.

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

From the *Photographic News*, London, Eng., April 20, 1877:

"Backgrounds as now sold here are too cheap to be good. In connection with this I cannot refrain from mentioning the name of Seavey, whom I consider at the present moment by far the finest photographic background painter living. I never yet have seen one piece of even indifferent painting turned out of his studio, all are 'O. K.' I understand that Mr. Atkinson, of Liverpool, has become his agent. If this be the case, I would advise all first-class photographers, who wish to adopt the best of everything, to see them for themselves. I know nothing personally of either gentlemen, and my advice is, therefore, 'disinterested.''

ONE day of last week the Grand Duke Alexis and friend were promenading up Broadway, when the attention of the couple was drawn to a watercolor cartoon on exhibition in a store window, and representing his Imperial Highness and favorite dog. The Grand Duke was so much pleased with it that he bade one of his attendants to discover the artist, and in his name to invite him on board the Russian flag-ship, to receive a compliment. The next day, Mr. Alberto Operti (artist at Seavey's scenic studio), the son of the leader of Booth's Theatre orchestra, was surprised with an invitation to call upon the Grand Duke. He complied with the request, and, upon introduction to his Imperial Highness, was presented with a superb gold cigarette box, with enamel ornamentations. In return, he gave the picture to the Grand Duke, who received it most eagerly. The box is valued at \$200.

For Sale.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Benerman & Wilson.

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

#### Wilson's Lantern Journeys. See Advertisement.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the trimmer, put in it a little fine emery and a drop of oil, and run the trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it.

#### Lantern Slides, \$5 per doz.

MR. J. R. APPLEGATE,

DEAR SIR: I am more than pleased with the patent machine. It does its work like a thing of life. It is not only showing up a good act for itself, but it is sharpening up all my other pictures. I would not take a thousand dollars for it if I could not get another. Wishing you success, I remain, yours truly,

J. O. Johnson.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

Can operate, print or retouch, nine years' experience. Moderate salary. Address, C. F. Blacklidge, Washington, D. C.

A lady wishes to make an engagement to retouch negatives at her home. Can give reference and show specimens. Address, E. G. Maize, 1343 Ridge Avenue.

A gentleman with experience would like a situation in a first-class art gallery, as practical retoucher and crayon sketch artist. Can furnish references as to ability and character. Address, Box 1309, Adrian, Mich.

As operator, retoucher, or to take full charge, by a first-class workman in all departments. Eight years' experience in city galleries. Address, D. Lyons, Photographer, Richmond, Va.

By a young man as printer and toner, will work in any part of the country. Reference given. Address, Charles H. Granville, 912 South 16th Street, Philadelphia, Pa.

By a practical view operator of twelve years' experience. Address, View Photographer, 276 Broadway, Chelsea, Mass.

A printer of eight years' experience desires a situation. Can retouch also. Address, H. T. Bishop, Chambersburg, Pa.

By a first-class negative retoucher and crayon artist in a first-class gallery. References given if required. Address, H. W. Craig, 19 Ohio St., Cleveland, Ohio.

By a first-class printer and toner. References given if required. Address, G. Aufrecht, 112 W. Thompson Street, Philadelphia, Pa.

As printer and toner, will-operate and retouch if necessary. Samples on application. Address, A. W. Huntington, Princeton, Illinois.

By a young man as practical printer and toner. Can assist at operating and viewing, and work the carbon process. Can furnish recommendation as to ability and character. Address, George J. Smook, Brockville, Ont.

As landscape and machine operator or printer. Fifteen years' experience. Address, Operator, in care of Geo. M. Grauley, 532 Walnut Street, Philadelphia, Pa.

A first-class operator and negative retoucher wants a situation by July 1st. Address, Henry Ehrlicher, 909 Buttonwood Street.

By a young man as printer, toner, or general assistant in a gallery. Have had three years' experience in the business. Address, H. F. Peck, 8 Cypress Street, Rochester, N. Y.

By a young man 19 years' old, who has worked 3 years in the business. Operator, printer, and viewing. Best reference. Address, F. W. U., 108 Northampton St., Boston, Mass.

By a first-class printer and toner and solar printer, in a first-class gallery. Have had seven years' in printing. Sample of work sent if required. Good reference. Address, "Charles," care of P. O. Box 164, New York City.

#### BULLOCK & CRENSHAW,

No. 528 Arch Street, Philadelphia,

MANUFACTURERS AND IMPORTERS OF PURE CHEMICALS FOR PHOTOGRAPHY.

IMPORTERS OF GLASS AND PORCELAIN, APPARATUS, ETC.

#### SECOND

## Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARVINGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

```
50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.
52. 2226—Carved Sideboard, Spanish section.
53. 2329—Egyptian section, Main Building.
54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel Saddles.
56. 2187—Pottery of the Danish section, Main Building.
57. 2165—Mammoth Japanese Vase.
58. 2017—Japanese Mirror and Bronzes.
59. 2170—Porcelain Vases, Japanese section.
60. 2175—Porcelain Ware, Japanese court.
61. 2015—Porcelain Ware, Japanese court.
62. 2167—Japanese Bronze and Silver Birds.
63. 2186—Japanese Screen and Bronzes.
64. 2193—Japanese Screen and Bronzes.
65. 2171—Japanese Toys.
66. 2172—Japanese Toys.
67. 2121—Chinese Court.
69. 2128—Round Top Bedstead, Chinese section.
71. 2369—Seven-storied Pagoda.
1. 2120—The Main Building "through the Trees."
2. 1865—Main Building, north side.
3. 2027—Main Building, transept towards northeast.
4. 2028—South Gallery of the Transept.
5. 1921—Statue, "Out in the Rain."
6. 2307—Norwegian Peasants.
7. 2387—The Clockmaker, Swedish section.
8. 2349—The Dying Elk.
9. 2362—Swedish Peasants.
10. 2041—Swedish Ornamental Pottery.
1. 2218—Porcelain Fireplage and Candelabra Swedish.
 11. 2218-Porcelain Fireplace and Candelabra, Swedish
                                                                   section
12. 2160-Victoria Court—Austrian section, Main Bldg.
13. 2214—Shell-work from the Bahama Islands.
14. 2215—Curiosities from the Gold Coast.
15. 2045—Doulton Pottery.
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.
10. 2019—Barnard's Babies and Cradles.
20. 2301—Brown, Westhead, Moore & Co.'s exhibit of Terra-cotta.
                                                                                                                                                                                                                                                                                                                             69. 2128—Round Top Bedstead, Chinese section.
70. 2006—Artificial Flowers, Chinese section.
71. 2369—Seven-storied Pagoda.
72. 2323—Chinese Annex, Main Building.
73. 2007—Argentine Mineral Exhibit.
74. 2159—Gauchos and Horse Trappings.
75. 2321—Argentine section, Main Building.
76. 2219—Orange Free State Exhibit.
77. 2216—Peruvian Mummies and Pottery.
78. 2008—Chilian Mineral exhibit.
79. 2166—Tunisian Court, Main Building.
80. 2179—Terra-cotta, Portuguese section.
81. 2178—Terra-cotta Ware, Portuguese section.
82. 2180—Terra-cotta Ware, Portuguese section.
83. 2154—Papier Mache Figures, Portuguese section.
84. 2061—Vitti's Alabaster Vases.
85. 2081—Viti's Alabaster Roman Vases.
86. 2098—Mott's Fountain.
87. 2001—United States Chemical Department.
88. 2003—Wenck & Co.'s Perlumery Stand.
90. 2100—Crystal Fountain.
90. 2106—Crystal Fountain.
91. 2156—Hertz & Co.'s Furniture exhibit.
92. 2191—American Musical Department.
93. 2101—American Book Trade Association exhibit.
94. 2317—Origin of our Flag.
95. 2048—American Glassware.
21. 2087—French section, Main Building,
22. 2282—French Bronzes,
23. 2005—French Religious Figures,
24. 2234—The Birth of Christ.
24. 2234—The Birth of Christ.
25. 1487—Carved Figures, Belgian section.
26. 2104—The Brazilian Court.
27. 2189—Brazilian Court.
28. 2188—Brazilian Court.
29. 2097—Facade, Netherlands section.
30. 2283—Netherlands Court.
31. 2285—Screen and Bronzes, Netherlands section.
32. 2365—Carved Models of Swiss Cottages.
33. 2366—Ornamental Swiss Carvings.
34. 2367—Swiss Carvings. Cattle Piece.

33. 2306—Urnamental Swiss Carvings.
34. 2367—Swiss Carvings, Cattle Piece.
35. 2090—Mexican section, Main Building.
36. 2096—Mexican Silver Cake. Valued at $72,000.
37. 1887—The Mexican Court.
38. 2062—Porcelain Ware, German section.
39. 1827—German Bronzes.
30. 2067—Austrian section. Main Building.

39. 1827—German Broccion.
40. 2050—Austrian section, Main Building.
41. 2009—Bohemian Glassware, Austrian section.
42. 2010—Bohemian Glassware, Austrian section.
43. 2011—Glassware, Austrian section.

  43. 2011—Glassware, Austrian section.
44. 2047—Glassware, Austrian section.
45. 2131—Austrian Bent-wood Furniture.
46. 2062—Porcelain Ware, Austrian section.
47. 2236—Porcelain Ware, Austrian section.
48. ——Religious Plastic Figures.
                                                                                                                                                                                                                                                                                                                                96. 2252—American Gas Fixtures.
97. 2265—American Picture Frames and Statuary.
                                                                                                                                                                                                                                                                                                                                98. Statuary—your choice of subject.
99. Statuary—your choice of subject.
100. 2064—View from the Reservoir.
    49. 2127-Russian section, Main Building.
```

The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy Wilson's Lantern Journeys, with which they will be published in a future edition.

\*The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.—
Edw. L. Wilson and W. Irving Adams, Proprietors.

We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

## EURYSCOPE.

THE

OF GREAT ILLUMINATING POWER,
FOR ALL KINDS OF OUT-DOOR WORK AND GROUPS.

MADE BY

### VOIGTLANDER & SON.

They consist of two achromatic and symmetrical combinations, between which the central diaphragm is placed. The lens is perfectly aplanatic, *i.e.*, it works with full aperture of the objectives. For the purposes of landscape photography, copying, for architectural subjects, and for groups in the studio, as well as outside, it is considered unrivalled. It is entirely free from distortion, chemical focus, and "ghosts," and the picture produced by it is mathematically correct. It is characterized by a great depth of focus and precise definition. The most important advantage of this new lens in comparison with others of similar kinds, consists in the great power of light it commands, and for this reason it is commended especially for groups, the pictures produced by it being most brilliant, also the light is spread equally all over the plate.

A very careful choice of the optical glass, of which the new lens is composed, makes it possible to secure a ratio of focus and aperture of about 6 to 1.

The width of angle embraced is between 65 and 85 degrees, according to the size of diaphragm used; as to rapidity, the new lens is more than twice as rapid as the orthoscopic lens, and only a little less than the long focus portrait lenses.

We have seven different sizes at the following prices:

No.	Di o	iamete f Lens	er 3.	Equ F	ivale 'ocus.	nt	Ва	ek F	ocus.	Si or	ze of V Landso	iew ape.	Siz	e of Gro Portrai	up t.	Pric	e. ,
0,		1 in	eb,		$5\frac{1}{2}$	inch,		5 i	nch,		Ster	eo.	pic	tures,		\$30	
1,		11/2	66		$9\frac{1}{2}$	66		81/4	44		8 x 1	0,		6 x 8,		50	00
A,		13/4	66		11	66		93/4	66		9 x 1	1,		7 x 9,		57	00
2,		2	66		$12\frac{1}{2}$	66		11	66		10 x 1	2,		8 x 10	9	70	00
C,		$2\frac{1}{2}$	66		16	66		14	66		13 x 1	6,	1	11 x 14	,	93	00
		3			19	66		163/4	66		15 x 1	8, .	1	13 x 16	,	140	00
		4		9	26½	66		$23\frac{1}{2}$	66		20 x 2	4, .	1	17 x 20	9	225	00

#### BENJ. FRENCH & CO.,

#### THE TRADE. HEADQUARTERS FOR

Show Displayers, Velvet Stands, Velvet Passepartouts, Velvet Cases, Beveled Matts, Double Matts, Fancy Metal Frames. Standard Matts, Fancy Paper Passepartouts.

These goods are entirely of our own manufacturing. A large assortment constantly on hand; odd sizes and styles made to order.

LEWIS PATTBERG & BRO., 709 (Formerly) Broadway, New York.

#### GLACE! GLACE!

J. DE BANES, 872 Broadway, N. Y., finishes Photographs of all sizes, for the trade, in the newest styles. Send in your orders early.

#### G. SAUTER.

No. 138 South Eighth Street, Philadelphia,

MANUFACTURER AND WHOLESALE DEALER IN

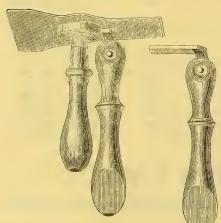
#### PASSEPARTOUTS

The attention of the trade is particularly called to the superior quality of our Glass and materials and neatness of finish. A large assortment constantly on hand.

#### A NEW PATENT STEREOSCOPE.

CONNECTING IT WITH A STAND.

Issued to M. J. RICE and JOSEPH L. BATES, of Boston, May 1, 1877.



#### DESCRIPTION.

On the upper part of the stand is a hinged arm-piece adjusted by a thumb screw. Under the usual socket upon the Stereoscope for the handle, is a groove made to receive the hinged arm-piece; this is held in place by the screw in the handle passing through it.

To take the Stereoscope from the Stand, turn the handle best the stereoscope from the Stand, turn the handle

back two or three turns and the arm-piece is free to be

back two or three turns and the arm-piece is free to be withdrawn.

Among the many improvements intended to facilitate the use of the well-known American Stereoscope, none has been offered to the public so valuable and so inexpensive as this. The change from the hand instrument to the stand, and its taking from the stand, requires but a moment's time and but little mechanical skill.

It is the intention of the attenties to simply the metal

It is the intention of the patentees to supply the metal picees, handles and screws ready for use, at prices which will make it for the interest of manufacturers, dealers and others to use this arrangement and none other, for the purpose named.

No vigit to manufacturers.

o rights to manufacture will be sold. All persons are cautioned against infringing. Orders to be addressed to

#### JOSEPH L. BATES,

4 Beacon Street, Boston.

#### JAMES F. MAGEE & CO.

MANUFACTURERS OF

#### PURE

## PHOTOGRAPHIC CHEMICALS,

No. 108 North Fifth Street,

PHILADELPHIA

Stock Dealers only Supplied.

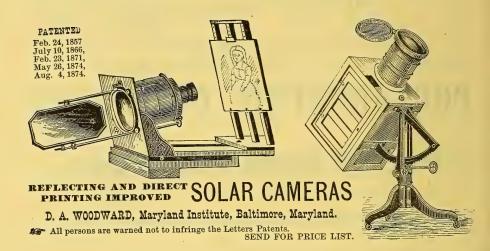
#### PHILADELPHIA WASHED EMULSION

Is a sensitive collodion, which by flowing upon glass or other plates prepares them for exposure in the camera, or for contact printing without other labor; no bath, sensitizing solutions, organifier, or other addition being required. The negatives made by its use are of superior quality, and the professional and amateur photographer is always ready, and escapes the heavy luggage which is unavoidable when the silver bath is used. It is as quick working as bath plates, easy of development, and abundantly dense without intensification. It will keep indefinitely before use, and the plates will remain sensitive for a long time after coating.

Send for circular and particulars to

#### THOS. H. M'COLLIN,

PHOTOGRAPHIC CHEMIST, Sole Agent,
624 Arch St., Philadelphia.



Patented June 13, 1876.

Improved April 3, 1877.



### New Departure!

NO CARDS!

NO WASTE!

A Neat and Ornamental Picture for the Pocket, or by Mail, at a trifling cost. Everybody

On account of the expense of our first machine, we are obliged to put in the market a lighter and cheaper one, doing the same

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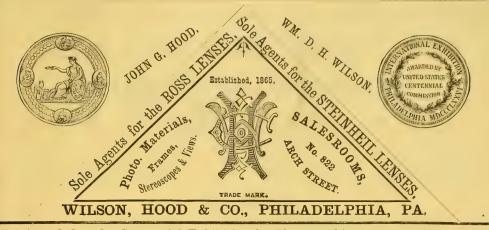
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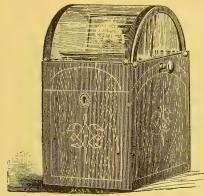
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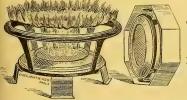
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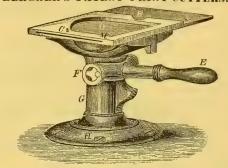
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2008—Chilian Mineral Exhibit—Main Building.
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2010—Bohemian Glassware, Austrian Section.
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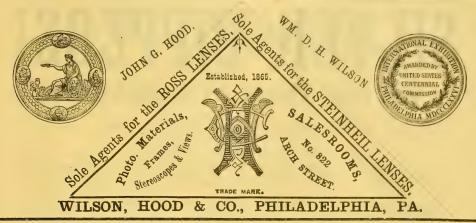
I shall want more of the same sort when this supply is exhausted.

Very truly yours,

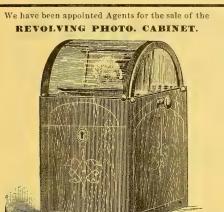
W. C. C. KIMBALL.

FOR SALE BY ALL STOCK-DEALERS.

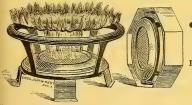
ALFRED L. HANCE, 116 North Seventh St., Philadelphia.



Medal Awarded at the Centennial Exhibition for Photographic Apparatus & Accessories



PR	CICES AS	FOL	ro.	ws	:						
0.	For 48 ca	rds.	10	Ю с	ard	3.	50 ca	b't.	10	0 cal	o't.
Velvet, ornamented	\$5	50		\$9	00		\$10	50		\$12	00
Velvet, ornamented,	mir-	00		10	00		19	00		14	50
Engraved walnut, gilt											
Engraved walnut, mi	rrors										
in aidea	7	50		10	50		14	50		16	00



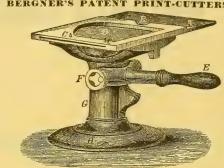
THE GORMAN HEATING

Price, \$1.00 each, by mail, post-paid.

#### CENTENNIAL STATUARY, FRAMED.

				ENAMELLED AND ENGRAVED FRAMES.	Per	loz
C	ard	size,	in	41/4 x 61/2 frame, black mat, standard back	\$7	5
ŝ	x8	"	in	6x9" " " " " " "	12	5
5	x 8	66	in	81/4 x 111/4, 1 in, frame, black mat	13	5
8	x 10	"	in	8½ x 11½, 1 in. frame, black mat	30	0

BERGNER'S PATENT



Card size & Small sterco	30 00   Cabinet 30 00   4 x 4 size	
	REKIN PLANISI	

#### WOOD EASELS, AND EASELS AND FRAME

*** •	~-								
No.	E	NTIRELY	NEW	STYLES	SAND	VERY	HAND	SOME.	Per do
		asel							
		" and ca							
606, E		and white			easel				. 11
, 600		66			. 6	and ca	abinet	frame.	. 16
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THE PART	A TANK I	12 M M M2 MA	THE PLANE	A THE WAY	A 12	CCAT		COT	ADE

	ENAMELLED FRAMES, ASSORTED COLORS
	No. ENGRAVED CORNERS, STANDARD BACK. Per do
	11, Card size, 1/4 in moulding
	12, Cabinet size $(4\frac{1}{4} \times 5\frac{1}{6})$ , $\frac{1}{4}$ in. moulding
,	4 S " " 1/4 in. " 4 '
	4 S, 6 x 9 " " ½ in. " 5 1
	4 S, " with cabinet or promenade black mats,
	Any size, or color, of enamelled frames made to order.

#### GLASS TRANSPARENCIES.

Assorted subjects, size 8 x 10..... each, \$2 5 VELVET & NICKEL-PLATED CARD FRAMES Oval and arch-top opening...... per dozen, \$4 &

We are constantly receiving new goods. Send for samples, and our new Price Lists

WILSON, HOOD & CO., PHILADELPHIA.

## SILVER DIPPERS

#### WE USE THEM EXCLUSIVELY.

They never Contaminate the Bath or Drop a Plate.

AMONG OTHER THINGS

WE HAVE A FEW SOLID SILVER DIPPERS FOR SALE, 16 inch, \$8.00. 22 inch, \$17.00.

This is lower than they can be had New.

## PRINTING FRAMES.

A lot of 5-8, 8-10, 10-12, 13-16, 20-24 Printing Frames, American Optical Co.'s make, very low, in lots. Also, our SURPLUS MORRISON LENSES, of the following sizes, etc.:

> Wide Angle Stereo. Lenses, in pairs. singly. Rapid Group Lenses, D and F.

#### PEERLESS LENSES.

1-4 and 1-2 size, in pairs. 1-4 and 1-2 and 4-4, singly. Ex. 4-4 and 8-4, singly.

#### AMERICAN OPTICAL CO.'S BOXES.

Imperial Boxes, 8-10, Double Swing. Portrait " 8-10, 10-12 and 14-17. 66 8-10 and 10-12, D. S. Venus View Stereo., 8-10, 10-12, 14-17, 20-24, D. S.

The Lenses were made ESPECIALLY for us, and we will GUARANTEE every one of them. Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained and bear no other evidence of having been used.

All these instruments and apparatus for sale at 25 per cent. discount from manufacturers' regular prices.

Sent C. O. D., if partial remittance accompanies order, and chance given to examine.

#### CENTENNIAL PHOTOGRAPHIC CO...

Belmont Avenue, International Exhibition, Philadelphia, Pa.

## WISDOM

Always takes time by the Forelock.

#### THEREFORE,

IT WILL BE A WISE THING TO

## Select your Lantern Slides Now!

Do you ask

### WHY?

Because our Stock is in for the Fall Trade, and you can have the best selections. Moreover, we are

#### SELLING LOW

and offer special inducements to those who will order now in quantities.

#### IF THE WAR

raises prices, you will be on the safe side.

FOUR CATALOGUES. 25 CENTS.

#### BENERMAN & WILSON,

116 .N. Seventh Street, Philada.

LARGEST STOCK OF LANTERN SLIDES IN AMERICA.

## G. GENNERT,

38 Maiden Lane, New York,

IMPORTER OF THE CELEBRATED

# S. & M. DRESDEN ALBUMEN PAPERS

SINGLE OR EXTRA BRILLIANT.

This paper has been imported by me to the great satisfaction of Photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO.

Hyposulphite of Soda,
Sulphate of Iron,
Solid German Glass Baths,
Saxe Evaporating Dishes,
French Filter Paper,
Porcelain Trays.

#### FERROTYPE PLATES.

I ALSO IMPORT EXTRA BRILLIANT

#### CROSS-SWORD PAPER.

FOR SALE BY ALL STOCK-DEALERS IN THE UNITED STATES AND CANADA.

## SCOVILL

## Manufacturing Company,

419 & 421 BROOME STREET,

## NEW YORK

MERCHANTS IN

## ALL ARTICLES PHOTOGRAPHIC,

FOREIGN AND DOMESTIC.

PROPRIETORS OF THE WORKS OF

#### THE AMERICAN OPTICAL CO., NEW YORK.

S. PECK & CO., NEW HAVEN, CONN. SCOVILL MANUF'G CO., WATERBURY, CONN.

SOLE AGENTS FOR

MORRISON'S VIEW LENSES,

"PEERLESS" PORTRAIT LENSES,

ENGLISH PORCELAIN WARE,

FRENCH AND ENGLISH GLASS,

ALBUMENIZED PAPER—ALL MAKES,

HANCE'S "PHOTO. SPECIALTIES,"

CENTENNIAL PHOTO. CO.'S VIEWS,

GRAPHOSCOPES, STEREOSCOPES, &c.

The Greatest Stock in the World! Dealers Everywhere Supplied Low!

419 BROOME 421

SCOVILL MANF'G CO., NEW YORK.



In addition to our regular goods, we are agents for and offer for sale the following:

#### CHROMOS OF "YANKEE DOODLE."

\$1.50 each. Sent postpaid on receipt of price.

#### ELECTROTYPES of CENTENNIAL AWARD MEDALS.

Single, at 75 cents, \$1.25, and \$1.75 each. Lapped at \$1.25, \$2.00, and \$3.00 each.

#### CENTENNIAL PHOTOGRAPHIC CO.'S VIEWS.

All the sizes and styles that are published. Every photographer in the land who will keep a stock of these goods can sell them; thousands of them every month

#### Go East! Go West! Go North! Go South!

THEY SELL EVERYWHERE!

Stereos, \$3.00 per dozen.  $5 \times 7$ , 50 cents each.  $8 \times 10$ , \$1.00 each.  $13 \times 16$ , \$2.50 each.  $17 \times 21$ , \$5.00 each.

SEND FOR CATALOGUE.

#### ROCHER'S ARTISTIC PHOTOGRAPHIC STUDIES.

The finest specimens ever offered for sale.

Imperial Size, \$2.50 each.

Boudoir Size, \$2.00 each.

#### PROMENADE PRIZE PICTURES.

Selections, per dozen, \$4.00. The 21 of Messrs. Rocher, Bigelow, and Taber, \$6.00. The whole set of 48, \$12.00.

These are excellent studies for young or old artists.

Dealers in Photographic Supplies would do well to keep a small stock of all of these goods on hand. Liberal discounts to the trade.

#### BENERMAN & WILSON, Photo. Publishers,

No. 116 North Seventh St., Philadelphia.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \*\* We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

For Sale .- My ground floor gallery, with house and lot. House two story, 22 x 63 feet. Built five years ago for the business. Five good living rooms, barn, wood shed, etc. Gallery well stocked with instruments, furniture, etc. All in perfect order. Will sell the whole for \$4000, which is much less than cost. Part on time if desired. Population of city 40,000. For further particulars, address,

J. FRANK SMITH,

Nicollet Island,

Minneapolis, Minn.

FOR SALE, -The only photograph and ferrotype gallery in a flourishing town of 5000 inhabitants. To the right man this is a splendid opportunity, as he can control the trade from a large surrounding country. Address,

PHOTOGRAPHER,

Middleboro, Mass.

#### The Wonderful Euryscopic Lens. See Advertisement.

\$2000. FOR SALE. - A spacious gallery 25x95, containing six rooms besides large operating and reception rooms, in the business centre of the city of Chicago. Three years' lease at half the usual rents. . Can let off, and be nearly rent free. Present cash receipts from \$70 to \$100 per week. Expenses, \$25. Ill health the only cause for sale. Any offer in reason accepted. Address. J. W. DENSLOW,

184 E. Madison St., Chicago.

#### The Wonderful Euryscopic Lens. See Advertisement.

FOR RENT. -The photograph gallery No. 412 North Eighth Street, Philadelphia. A double bulk, French plate glass windows in store, and very convenient rooms and gallery in 2d story, This is a very choice for a first-class artist. place for a permanent business. Rent \$500 per ELLIS BRANSON, annum. Apply to

No. 410 N. Eighth Street.

#### The Wonderful Euryscopic Lens. See Advertisement. USE WAYMOUTH'S VIGNETTE PAPERS.

#### Hance's Photographic Specialties. See Advertisement.

A SPLENDID CHANCE for a good operator to buy out a neat gallery in a Virginia town of 2500 inhabitants, with three railroads running into the place, and three colleges in town. Only gallery in town, or within 25 miles of it. Cause for selling, failing health. For particulars, address,

JAMES PARKER, Photographer,

Suffolk, Va.

#### Wilson's Lantern Journeys. See Advertisement.

\$25.00 per month will buy a tip-top little gallery at Selins Grove, being the only gallery in Snyder County. Invoice about \$300 or \$400; or will rent it as it stands, or on shares.

Address, with stamp,

C. S. SWINEFORD, Attorney,

Selins Grove, Pa.

FOR SALE .- At less than half cost. A globe lens 14 x 17, a superior instrument and good as new, cost \$135. Mounted on folding bed camera box with 15 x 15 inch plateholder with kits 4-4 size. Has one extra front and fine focusing screw. Will sell the whole for \$70 cash.

C. E. MEYERS,

Mohawk, N. Y.

#### Lantern Slides, \$5 per doz.

LARGE ROLLER PRESSES FOR SALE .- Chilled iron rollers twenty inches long and nine inches diameter, with connecting adjustable gearing. A magnificent machine in perfect order and for sale low. Also another of same style, rollers twelve inches long and four inches diameter. BENERMAN & WILSON, For prices, apply to

Philadelphia.

#### WAYMOUTH'S VIGNETTE PAPERS.

FOR SALE .- Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc. BENERMAN & WILSON. Apply to

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876. Centennial Photo, Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co., Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsobicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. —W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 61 x 81 as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take Yours truly, them.

C. SEAVER, JR.

FOR THE SUMMER SEASON OF 1877.

#### Seavey's Backgrounds and Accessories.

Jewell Landscape,
From the Mountain Top,
Canandaigua Lake,
Evangeline,
Allonge Sea Shore,
Sarony " " "
Seavey's Garden,
S. & F. Eastlake Interior.
Stein Parlor,
Mora Satin.

Garden Seat, No. 2,
The Mora Balustrade,
Papier-Mache Rocks—Large, Medium, and
Small,
Artificial Ivy, &c., &c., &c.

Particular attention for the coming summer is being paid to Landscape, Mountain, and Sea Shore designs, with appropriate Accessories.

Eminent Foreign Photographers, attracted by the artistic quality of our productions, are favoring us with their patronage. Samples to be immediately returned, sent on application to responsible parties,

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

From the *Photographic News*, London, Eng., April 20, 1877:

"Backgrounds as now sold here are too cheap to be good. In connection with this I cannot refrain from mentioning the name of Seavey, whom I consider at the present moment by far the finest photographic background painter living. I never yet have seen one piece of even indifferent painting turned out of his studio, all are 'O. K.' I understand that Mr. Atkinson, of Liverpool, has become his agent. If this be the case, I would advise all first-class photographers, who wish to adopt the best of everything, to see them for themselves. I know nothing personally of either geutlemen, and my advice is, therefore, 'disinterested.''

ONE day of last week the Grand Duke Alexis and friend were promenading up Broadway, when the attention of the couple was drawn to a watercolor cartoon on exhibition in a store window, and representing his Imperial Highness and favorite dog. The Grand Duke was so much pleased with it that he bade one of his attendants to discover the artist, and in his name to invite him on board the Russian flag-ship, to receive a compliment. The next day, Mr. Alberto Operti (artist at Seavey's scenic studio), the son of the leader of Booth's Theatre orchestra, was surprised with an invitation to call upon the Grand Duke. He complied with the request, and, upon introduction to his Imperial Highness, was presented with a superb gold cigarette box, with enamel ornamentations. In return, he gave the picture to the Grand Duke, who received it most eagerly. The box is valued at \$200.

USE WAYMOUTH'S VIGNETTE PAPERS.

### Hance's Photographic Specialties. See Advertisement.

BURREL'S CHART AND HINTS TO PATRONS.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

### Wilson's Lantern Journeys. See Advertisement.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's Trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the Trimmer, put in it a little fine emery and a drop of oil, and run the Trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the Trimmer; ascertain by trial which side of the wheel should be on the inside of the zinc or iron mat to cut best, and mark it.

#### Lantern Slides, \$5 per doz.

MR. J. R. APPLEGATE,

DEAR SIR: I am more than pleased with the patent machine. It does its work like a thing of life. It is not only showing up a good act for itself, but it is sharpening up all my other pictures. I would not take a thousand dollars for it if I could not get another. Wishing you success, I remain, yours truly,

J. O. Johnson.

For Sale.—A first-class gallery with the best instruments and A No. 1 north top and side lights. Has the cream of the arcade. Population of city 25,000; a very good farming country and about fifteen small villages without a gallery in the neighborhood. Plenty of water in working, and dark rooms. Will sell for one third of its value; good reason for selling. Price for card photographs, \$4. per doz.

Address,

H. KLINGHOLZ,

Springfield, Ill.

For Sale.—In Richmond, Va. A first-class photograph gallery; two lights, with everything necessary to conduct a first-class establishment. Only one other gallery of the kind in the city. Most handsomely located and furnished gallery south of Washington. Splendid chance for an energetic man. Proprietor not understanding the business. Address, or apply to,

J. J. WRIGHT, Richmond, Va.

### WAYMOUTH'S VIGNETTE PAPERS.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

By an experienced photographer, can work at any branch of the business. Open for engagement 1st of September. Address, Retoucher, Box 321 Lebanon, O., Warren Co.

As operator, printer and toner, by a young man of four years' experience. Best of reference. Address, C. W. Collins, Marion, Ohio.

By a first-class retoucher, crayon and ink artist. For references apply to Frank Jewell, Scranton, Pa., by whom I have been employed. Address, W. R. Tobias, Scranton, Pa.

By a young lady of several years' experience, in a first-class gallery, as retoucher and water colorist. References given if required. Samples of work will be sent if desired. Address, Lizzie Ansten, 26 Madison St., Syracuse, N. Y.

In a first-class gallery to learn retouching with privilege of remaining one or two years at employer's own terms. Good recommendations. Address, stating terms, "Retoucher." Box 341 Salem, Columbia Co., Ohio.

A first-class operator and negative retoucher, is open for an engagement on a salary. No engagement for less than one year. Have worked in Chicago, Louisville, and other places in Ohio, etc. If you want a reliable man, and one who understands his business, address, E., Box 194, Cincinnati, Ohio.

As printer, toner, and general assistant, by a young married man of four years' experience. Address, Frank P. Towse, care A. C. Partridge, 535 Washington St., Boston.

In some first-class gallery, by a first-class retoucher. Can assist in operating. Those meaning business, address, stating terms, Robert H. Mann, Delavan, Illinois.

As operator or printer, or would take charge of a small gallery, by a photographer of nine years' experience. Best of references. Address, H. B. Hansbury, 4119 Lancaster Ave., W. Phila.

By a young man who can operate, retouch, print, tone, and make himself generally useful. Has had three years' experience in a first-class gallery. Address, Isaac C. Lee, Mahanoy City, Pa

USE WAYMOUTH'S VIGNETTE PAPERS.

#### SECOND

## Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS, BRONZES, GLASSWARE, CARVINGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

```
LIST OF SLIDES.
1. 2120—The Main Building "through the Trees."
2. 1865—Main Building, north side.
3. 2027—Main Building, transept towards northeast.
4. 2028—South Gallery of the Transept.
5. 1921—Statue, "Out in the Rain."
6. 2307—Norwegian Peasants.
7. 2387—The Clockmaker, Swedish section.
8. 2349—The Dying Elk.
9. 2362—Swedish Peasants.
10. 2041—Swedish Ornamental Pottery.
11. 2218—Porcelain Firenlage and Candelabra, Swedi
                                                                                                                                                                                                          50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.

50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.
52. 2226—Carved Sideboard, Spanish section.
53. 2329—Egyptian section, Main Building.
54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel Saddles.
56. 2187—Pottery of the Danish section, Main Building.
57. 2165—Mammoth Japanese Vase.
58. 2017—Japanese Mirror and Bronzes.
59. 2170—Porcelain Vases, Japanese section.
60. 2175—Porcelain Ware, Japanese court.
61. 2015—Porcelain Ware, Japanese court.
62. 2167—Japanese Bronze and Silver Birds.
63. 2186—Japanese Screen and Bronzes.
64. 2193—Japanese Toys

 11. 2218-Porcelain Fireplace and Candelabra, Swedish
section.

12. 2160- Victoria Court—Austrian section, Main Bldg.

13. 2214-Shell-work from the Bahama Islands.

14. 2215—Curiosities from the Gold Coast.
                                                                                                                                                                                                          65. 2171—Japanese Toys
66. 2172—Japanese Toys.
67. 2121—Chinese Court, exterior.
68. 2203—Chinese Court.
  15. 2045-Doulton Pottery
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.
19. 2279—Barnard's Babies and Cradles.
20. 2301—Brown, Westhead, Moore & Co.'s exhibit of
                                                                                                                                                                                                          69. 2128—Round Top Bedstead, Chinese section.
70. 2006—Artificial Flowers, Chinese section.
                                                                                                                                                                                                         70. 2006—Artificial Flowers, Chinese section
71. 2369—Seven-storied Pagoda.
72. 2323—Chinese Annex, Main Building.
73. 2007—Argentine Mineral Exhibit.
74. 2159—Gauchos and Horse Trappings.
75. 2321—Argentine section, Main Building.
76. 2219—Orange Free State Exhibit.
77. 2216—Peruvian Mummies and Pottery.
78. 2008—Chilian Mineral exhibit.
79. 2166—Tunisian Court, Main Building.
80. 2179—Terra-cotta. Portuguese section.
                                          Terra-cotta.
21. 2087—French section, Main Building.
22. 2282—French Bronzes.
23. 2005—French Religious Figures.
24. 2234—The Birth of Christ.
25. 1487—Carved Figures, Belgian section.26. 2104—The Brazilian Court.
 27. 2189—Brazilian Court.
28. 2188—Brazilian Court.
26, 2166—Brazinan Court.
29, 2097—Facade, Netherlands section.
30, 2283—Netherlands Court.
31, 2285—Screen and Bronzes, Netherlands section.
32, 2365—Carved Models of Swiss Cottages.
33, 2366—Ornamental Swiss Carvings.
                                                                                                                                                                                                          79. 2166—Tunistan Court, Main Building.
80. 2179—Terra-cotta, Portuguese section.
81. 2178—Terra-cotta Ware, Portuguese section.
82. 2180—Terra-cotta Ware, Portuguese section.
83. 2154—Papier Mache Figures, Portuguese section.
84. 2061—Viti's Alabaster Vases.
85. 2081—Viti's Alabaster Roman Vases.
             2367-Swiss Carvings, Cattle Piece
35. 2090 — Mexican section, Main Building.
36. 2096 — Mexican Silver Cake. Valued at $72,000.
37. 1887 — The Mexican Court.
                                                                                                                                                                                                          85. 2093—With S Aladase Holian Vases.
87. 2001—United States Chemical Department.
88. 2091—United States Chemical Department.
89. 2003—Wenck & Co.'s Perfumery Stand.
90. 2169—Crystal Fountain.
38. 2062—Porcelain Ware, German section.
39. 1827—German Bronzes.

    39. 1827—German Bronzes.
    40. 2050—Austrian section, Main Building.
    41. 2009—Bohemian Glassware, Austrian section.
    42. 2010—Bohemian Glassware, Austrian section.
    43. 2011—Glassware, Austrian section.
    44. 2047—Glassware, Austrian section.
    45. 2131—Austrian Bent-wood Furniture.
    46. 2062—Porcelain Ware, Austrian section.
    47. 2236—Porcelain Ware, Austrian section.
    48. — Religious Plastic Figures.
    49. 2197—Russian section.

                                                                                                                                                                                                          90, 2100—Crysta Fountain.
91. 2156—Hertz & Co.'s Furniture exhibit.
92. 2191—American Musical Department.
93. 2101—American Book Trade Association exhibit.
94. 2317—Origin of our Flag.
                                                                                                                                                                                                           95. 2048-American Glassware
                                                                                                                                                                                                          96. 2252—American Gas Fixtures.
97. 2265—American Picture Frames and Statuary.
                                                                                                                                                                                                          98. Statuary—your choice of subject.
99. Statuary—your choice of subject.
100. 2064—View from the Reservoir.
  48. ——Rengious I laure
49. 2127—Russian section, Main Building.
```

The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy Wilson's Lantern Journeys, with which they will be published in a future edition.

\*\* The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.—
Edw. L. Wilson and W. Irving Adams, Proprietors.

We are now prepared to furnish the above in Slides or Stereos., as the readings are equally interesting with either.

BENERMAN & WILSON, 116 N. 7th St., Philada.

## EURYSCOPE.

#### ANEW

#### DOUBLE OBJECTIVE,

OF GREAT ILLUMINATING POWER,

FOR ALL KINDS OF OUT-DOOR WORK AND GROUPS.

MADE BY

## VOIGTLANDER & SON.

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1,		11/2	66		91/2	66		81/4	66		10 x	12,	7 x 9,	50 00	
A,		13/4	66		11	66		93/4	66		11 x	13,	8 x 10,	57 00	
2,		2	66		$12\frac{1}{2}$	66		11	66		12 x	14,	10 x 12,	70 00	
C,		21/2	66		16	66		14	66		17 x	20,	14 x 17,	93 00	
3,		3	66		19	66		163/4	66		18 x	22,	17 x 20,	140 00	
6,		4	66		$26\frac{1}{2}$	66		$23\frac{1}{2}$	46		22 x	26,	$\dots\dots 20 \times 24, \dots\dots$	225 00	

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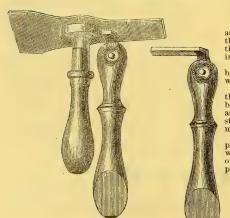
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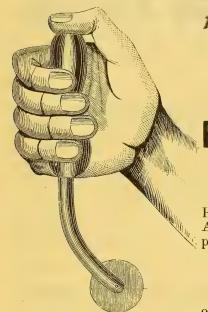
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6.6	3,4-4	6.6	7	• 66	6.6		45	00	6.6	7,	18-2	22	4.6				200	00
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64—Machinery Hall, south avenue.
65—Horticultural Building, S. E. forcing room. 460—Main Building—Main Avenue, from Transept. 462—Horticultural Hall, from grounds. 491—Women's Pavilion, from gallery. 505—Massachusetts State Building. 534—Lansdowne Valley. 535—Centennial Grounds, from Judges' Pavilion. 65—Horticultural Building, S. E. forcing room,
102—Main Building, east end,
104—Main Building—Nave,
107—Main Building—Transept,
115—Main Building—Transept,
120—Horticultural Building—S. E. forcing room,
122—Horticultural Building. 537—Horticultural Building, south entrance. 551—Art Annex—Italian Department. 543—Art Annex—Italian Department. 544—Art Annex—Italian Department. 545—Art Annex—Italian Department. 557—Log Cabin in "Ye Olden Time." 122—Horticultural Building.
123—Machinery Hall.
126—British Government Buildings.
145—Main Building—Transept looking Northwest.
151—Agricultural Building, north avenue.
153—Horticultural Building, main avenue.
153—Horticultural Building, floral ball.
155—Main Building—Swedish Section.
158—Main Building—Transept looking Southwest.
161—Corliss Engine.
164—Falstrom and Tornavist's Exhibit 557—Log Cabin in "Ye Olden Time."
566—Memorial Hall.
599—South Avenue, from west end Mach. Hall.
604—Swedish School-house.
650—New Jersey State Building, rear view.
651—The Twenty-inch Rodman Gun.
652—Main Building, west end.
656—Main Building, west side.
665—The Dying Lioness.
666—Navy Group for Lincoln Monument.
675—Dome—Memorial Hall.
678—The American Volunteer (Granite Statue).
692—Memorial Hall—Italian Section.
693—Horticultural Grounds.
700—Agricultural Hall, from Horticultural Hall 161—Coffiss Englie.
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177—Netherlands Section.
218—Horticultural Building, south side. 218—Horticultural Building, south side.
222—Women's Pavilion.
226—Agricultural Building—Main ave., from centre.
227—Agricultural Building—Main ave., looking West
230—English Government Buildings.
231—Japanese Commissioners' Dwelling.
232—Japanese Commissioners' Dwelling—Piazza. 693—Horticultural Grounds.
700—Agricultural Hall, from Horticultural Hall.
702—Horticultural Hall—Southeast view.
703—Pennsylvania State Building.
704—New Hampshire State Building.
705—Queensland Court—Main Building.
722—Wisconsin State Building. 722—Wisconsin State Building,
723—Ullinois State Building,
729—Ohio State Building,
732—Monitor Turret.
737—Rhododendrons—Horticultural Grounds,
743—Memorial Hall—American Department,
744—Memorial Hall—Altar Piece, Italian,
745—Agricultural Hall—Mian Avenue,
746—Nave, looking north,
752—Horticultural Hall, interior,
756—West Virginia State Building,
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768—General View of State Buildings,
769—The Locomotive of "1875."
770—The Locomotive of "1875." 232—Japanese Commissioners' Dwelling—Piazza.
233—New York State Buildings.
249—Norwegian 15th Century Furniture.
250—Netherlands Section—Klosk.
251—Gustafsberg China and Porcelain—Swedish sec.
254—Anthurum Scherzonanum—Horticultural Hall.
261—Cereus Monstrosa Opuntia Peruvianus.
264—Dicksonia Antistica—Floral Hall.
265—Ceroxylon Nevium—Floral Hall.
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273—Latonia Barbonica—Floral Hall.
275—Century Plant—Floral Hall.
275—Century Plant—Floral Hall.
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(READ SUCCEEDING PAGE.)

# HANCE'S

# Photographic Specialties



### AHEAD!



#### HIGHEST PREMIUM AWARDED

AT THE CENTENNIAL EXPOSITION

Having received the Highest Award for Photographic Specialties, I feel more confidence than ever in offering my manufactures to the Photographic fraternity. My exhibit was an extremely modest one, being taken from stock, put up in original packages without any attempt at display. Yet it carried off the prize over all the exhibits put up in cut glass decanters with ribbon-tied stoppers, proving that the medal was awarded for MERIT ALONE.

# TRY GROUND-GLASS SUBSTITUTE.

ONE OF THE MOST USEFUL THINGS MADE.

READ THE FOLLOWING:

MR. A. L. HANCE.

Dear Sir: I am pleased to inform you that the gallon of Ground-Glass Substitute came safely and is just what I wanted. The surface for retouching which it gives is superb.

I shall want more of the same sort when this supply is

exhausted.

Very truly yours,

W. G. C. KIMBALL,

Concord, N. H.

FOR SALE BY ALL STOCK-DEALERS.

NO RETAIL ORDERS FILLED. ORDER OF YOUR DEALER.

ALFRED L. HANCE, Philadelphia.

JOHN G. HOOD.-

Appendix No.[8.

WM. D. H. WILSON.

# WILSON, HOOD & CO.



# PHOTOGRAPH REQUISITES, FRAMES,

STEREOSCOPES & VIEWS,

# 822 Arch St., Philadelphia.

OCT. 1ST, 1877.

DEAR SIR: As we desire to clean our stock, and make room for other goods, we have decided to offer the following goods at quoted prices. Many of them are unused, and all are in very fair condition. Terms, Cash with order. Lenses subject to one week's trial, money refunded if they do not prove satisfactory. In addition to articles named, we have a number of **Job Lots** of Frames, Passepartouts, Mats, and Stereoscopic Views, of which we will send sample lots to any desired amount. We offer you an opportunity to get a very good assortment of above named goods, for a small amount of money, which we trust you will appreciate and forward your orders speedily.

7 9 to all Clabs Town	1 16 /1 16 Tuke Poston Com Por /second
1 3 inch Globe Lens,	1 16 (1-16) Tube Boston Gem Box (second
18 " " 30 00	hand),
2 \(\frac{1}{4}\) Harrison Portrait Lens (no flange),	1 5 x 8 A. Op. Co. Box (2d quality), 14 00
each, 10 00	1 No. 52, 4-4 S. S. A. Op. Co. Box, 30 00
1 8-4 Harrison Portrait Lens, 50 00	1 " 4, 8-10 D. S. B. A. Op. Co. Box, . 35 00
1 8-4 E. A. " " 40 00	1 No. $4\frac{1}{2}$ , 10-12 " " . 35 00
1 8-4 Roettger "	1 No. 5, 11-14 D. S. B. "
1 1 H. B. & H. " (no flange), . 15 00	1 No. 42, 10-12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 Bergner Stereo Cutter, A. T., 27 x 31/2 . 20 00
1 pair & Darlot R. & P. Lenses, 15 00	1 " 4-4 " oval, 20 00
1 6½ x 8½ T. A. Dallmeyer Lens, 30 00	1 " Cabinet" Square 30 00 ,
1 & Voigtlander Portrait Lens, C. S 30 00	2 Green Rep Child's Lounges, each, 8 00
2 ½ " " " each, 35 00 1 ½ C. " " " 60 00	1 Brook's Card Glace Press, 3 00
1 2 C " " 60 00	3 Nason Head-screens, each, 9 00
1 4-4 " " " 55 00	5 " Background Carriages, . " 3 75
1 pair No. 2 Steinheil Lenses, C. S., 45 00	4 Pedestals (W. H. & Co., Nos. 1 and 2),
1 No. 5 " " " 55.00	each, 8 50
1 No. 5 " " " 55 00 1 " 6 " " 90 00	2 Seavey Painted Divans, each, 450
	1 " Cabinet, 16 20
1 No. 13 D. S. B. A. Op. Co. Box, (second	1 " Wainscoating, 13 50
hand),	1 "Balustrade,
1 No. 56 14-17 D. S. B. A. Op. Co. Box,	
(second hand),	2 Witte's ½ gal. Evaporating Dishes, each, 2 50
1 No. 30 4-8 Stereo, D. S. B. A. Op. Co.	5 boxes French Aniline Colors, 350 5 copies Vogel's Reference Book, 100 50 Brauns' Carbon Panoramas. 150
(second hand),	5 copies Vogel's Reference Book, " 1 00
1 No. 25 7 x 10 D. S. B. A. Op. Co. Box,	50 Brauns' Carbon Panoramas. " 1 50
(second hand), 60 00	6 " " Game Pieces, " . 6 00
1 4-4 Swing Front Box, 25 00	1 A. Op. Co. Levelling Stand, 5 00

Asking a careful perusal of this circular, and soliciting your orders for any of the goods named in it, or any others required in your business we remain,

Yours, very truly,

WILSON, HOOD & CO.



"For Utility and Fitness."

#### AWARDED A MEDAL

At the Centennial Exhibition, 1876.

Do not Waste Time with a Knife and Glass, but try Prof. Robinson's invention.



# Robinson's Photograph Trimmer

IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING FHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGANTLY
THAN A KNIFE.

#### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mounc. Try one, and you will diseard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

#### A Trimmer and Ten Inches of Guides Mailed for \$3.50.

(Oil the Wheel Bearings with Sewing Machine Oil.)

# Robinson's Metallic Guides,

#### FOR USE with the ROBINSON PRINT-TRIMMER.

These Guides are Made of Stout Iron and are Turned in a Lathe, so that they are Mathematically True.

OVAL, ROUND, ELLIPTIC, and SQUARE, of all sizes; various shapes for Stereoscopic work, Drug Labels, etc., etc.

We have the following regular sizes always on hand at 10 cents per inch, the longest way of the aperture, the fractions counting as one inch.

Special sizes made to order at 15 cents per inch, the longest way of the aperture.

#### REGULAR SIZES:

	OVALS.		Square or Round-Cornered.
$\begin{array}{c} 2 \times 2_8^7 \\ 2_8^1 \times 3_8^1 \\ 2_8^1 \times 3_4^1 \\ 2_8^2 \times 3_8^3 \end{array}$	$3\frac{1}{2} \times 4\frac{7}{8}$ $3\frac{5}{8} \times 5\frac{1}{8}$ $4 \times 5\frac{3}{8}$ $4\frac{3}{8} \times 6\frac{3}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$ $6 \times 8$ $6\frac{1}{4} \times 8\frac{1}{4}$ $6\frac{1}{2} \times 8\frac{1}{2}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$2^{5}_{8} \times 3^{5}_{8}$	5 x 7	7 x 9	For Stereographs.
$2rac{7}{8}  imes 4rac{1}{4}$	$5\frac{1}{4} \times 7\frac{1}{4}$	$7\frac{1}{4} \times 9\frac{1}{4}$	Arch Tops. Round-Cornered. Round.
3 g x 4 g	$5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$	$3\frac{1}{16} \times 3\frac{3}{4} \qquad 3\frac{1}{16} \times 3\frac{3}{4} \qquad 3 \times 3$
$3\frac{3}{8} \times 4\frac{5}{8}$	5§ x 7§	$7\frac{3}{4} \times 9\frac{3}{4}$	3 x 3 3 x 3 x 3 x 3

The above sizes suit the Collins Card Mounts, and photographers knowing that they can always be had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

EDWARD L. WILSON, Manufacturer's Agent, PHILADELPHIA, PA.

FOR SALE BY ALL DEALERS.



# ROSS Portrait and View Lenses

We have now successfully introduced to the American Photographers the Ross Lenses, and by our increased sales we know they are appreciated. At the Centennial Exhibition many fine photographs were exhibited by photographers, and ourselves, made with the Ross Lenses, which attracted great attention.

While Ross & Co. are the oldest manufacturers of Photographic Lenses in existence, they also keep up with the requirements of the fraternity, by constantly manufacturing new combinations and improving on those already in existence. They have lately perfected, and will soon furnish us stock of, a new series of Card Lenses, extra rapid, peculiarly adapted for babies, and people who will not be quiet. We will give notice of their arrival.

#### WE HAVE NOW IN STOCK

Portrait Lenses, from 1-4 to 15 x 18.

Cabinet Lenses, Nos. 1, 2, and 3.

Card Lenses, Nos. 1, 2, and 3.

Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.

Symmetricals.

Instantaneous Doublets, all sizes.

Medium Angle Doublets, all sizes.

Large Angle Doublets, all sizes.

Stereographic Lenses, all sizes.

New Universal Lens.

Numerous testimonials pronounce them to be the best, as well as the cheapest Foreign Lenses ever offered to the American Photographer. We will mail price-list on application, and promptly fill all orders.

PART OF THE ROSS CENTENNIAL LENSES ARE STILL UNSOLD.

## Steinheil's Sons'APLANATIC Lenses.

We now have a full stock of these Celebrated Lenses, at the following prices:

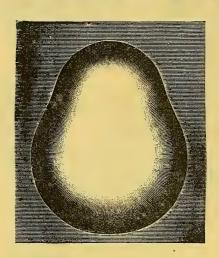
No. 1-1-4 size, .		3½ inch	focus,		\$25	00	No. 5-10-12 size, . $13\frac{1}{2}$ inch focus,	. \$70	00
2—1-2 " .		51 "	"		30	0.0	6—13-16 " 164 "	* TIO	UU
3-4-4 " .								. 200	00
4-8-10 " .	. 1	01 "	66		60	00	8—20-24 "	. 350 (	00

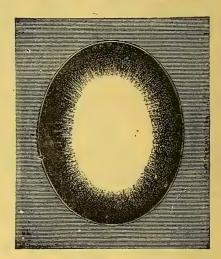
Nos. 1 and 2 are in matched pairs for Stereoscopic Work.

We feel sure that at least one of these lenses is needful for the successful prosecution of your business, and so solicit your orders.

Wilson, Hood & Co. SOLE AGENTS FOR 822 Arch St., Philadelphia, Pa.

### **WAYMOUTH'S**





# Vignetting Papers

ARE MADE OF TWO SHAPES, as shown in the drawing above. They consist of finely gradated lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest,

and best means of producing vignette pictures ever offered.

The quality of the "papers" has been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a testimonial from Mr. Ormsby, who has sent us also some exquisite vignettes.

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send E. D. ORMSBY, Chicago. them all that shape.

#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

"First-class."—"The sample sent answers perfectly."—"I consider them first-rate articles."—"They answer the purpose admirably."-" They are the best vignetters I have ever had, and as you can print in answer the purpose admirably."—"They are the best vignetters I have ever had, and as you can print in full sunlight, they are a great saving of time."—"They could not be better, oblige me with another packet."

—"I find them excellent, giving much softer pictures than the old way."—"I have tried one of the Vignette Papers, and like it much; send me packets two and three."—"I am much pleased with them, and shall thank you to send me another packet."—"I did not need any copies of testimonials, having well-known by experience that your Vignette Papers were superior to anything I have ever used."—
"I found those you sent before excellent."—"Vignetting Papers received and tested; can't be beat. I use by cutting an opening in a piece of cardboard and tacking to the printing-frame, when I am ready to make the part of the printing rigarities in the years best manner."—"Waymouth's Vignette Papers I have tried, and they for printing vignettes in the very best manner."—"Waymouth's Vignette Papers I have tried, and they are just what I have been wanting for years."

Any number sent on receipt of price, by any stockdealer, or by

EDWARD L. WILSON, Manufacturer,

(See opposite page.)

PHILADELPHIA.

ASK YOUR DEALER FOR THEM.

# WAYMOUTH'S VIGNETTE PAPERS.

(DESIGNS COPYRIGHTED.)

OF ALL PICTURES THE THE MOST ARTISTIC

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

#### WAYMOUTH'S VIGNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE,

AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

#### They need but one adjustment to print any quantity.

They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small curte figure to Wholesize, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each purcel.

#### PRICES:

In parcels containing one of each size, Nos. 1 to 15, assorted colors,														
Assorted sizes and colors, by numbers, per package of fifteen,														
Nos. 1, 2, 3, 4, and 5, as	sorted	sizes and	color	s, for Cartes, l	by number, pe	r dozen, .				50				
" 6, 7, 11, 12, and 13	cc.	66	. 66	Large Cartes	and Victoria	, by number.	per	doz.,		75				
" 8, 9, 10, 14, and 15	66	4.6	66	Cabinets and	Whole-size,		66		- 1	0.0				
" 16, 17, and 18,	"	66	64	Half "	+6	**	44		-1	25				

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

#### EDWARD L. WILSON, Manufacturer,

116 North Seventh Street, Philadelphia.

ASK YOUR DEALER FOR THEM.

# SILVER DIPPERS

#### WE USE THEM EXCLUSIVELY.

THEY NEVER CONTAMINATE A BATH OR DROP A PLATE!

Among other things, we have

# A few Solid Silver Dippers for Sale

16 inch, \$8.00.

22 inch, \$17.00.

This is lower than they can be had new.

# Printing Frames,

A lot of 5-8, 8-10, 10-12, 13-16, 20-24 Printing Frames, American Optical Co.'s make, very low, in lots. Also, our

#### Surplus Morrison Lenses,

OF THE FOLLOWING SIZES, Etc.:

Wide-Angle Stereo. Lenses, in pairs. Wide-Angle Stereo. Lenses, singly.

Rapid Group Lenses, D and F.

#### Peerless Lenses.

1-4 and 1-2 size, in pairs. 1-4 and 1-2, and 4-4, singly. Ex. 4-4 and 8-4, singly.

# American Optical Co.'s Boxes and Holders.

Imperial Boxes, 8-10, Double Swing. Portrait Boxes, 8-10, 10-12 and 14-17. Venus Boxes, 8-10 and 10-12, D. S.

View Boxes, Stereo. 8-10, 10-12, 14-17, 20-24, D. S.

As most of our boxes were supplied with two holders, we also have a quantity of single holders for the above boxes for sale cheap.

The Lenses were made ESPECIALLY for us and we will GUARANTEE every one of them. Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained, and bear no other evidence of having been used.

### All these instruments and apparatus for sale at 25 per cent. discount from manufacturers' regular prices.

Sent C. O. D., with permission to examine and try, if partial remittance accompanies order.

CENTENNIAL PHOTOGRAPHIC CO.,

Belmont Avenue, International Exhibition, Philadelphia, Pa.

#### Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We we cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Wanted.—A good retoucher, lady or gentleman. One who can also color preferred. To one willing to work for a low salary, six months' employment at least will be guaranteed.

Address,

B. Frank Saylor, Lancaster, Pa.

For Sale.—Gallery in Orange, Mass. Five rooms, north light, running water. Location good. Address,

C. B. MELLIST,

Orange, Mass.

#### The Wonderful Euryscopic Lens. See Advertisement.

THE undersigned is open for engagement, and as is well known, is capable of undertaking any branch of the business. Twenty years of experience in painting, posing, operating, and printing.

John L. Gihon, 1328 Chestnut St., Phila.

For Sale.—A new and handsomely fitted gallery, building erected especially for the purpose, in Santa Clara, Cal., town of 4000 inhabitants, with rich farming country around it. The only gallery in town. No opposition. Price \$600 cash. For information, address,

H. SCHOENE,
Santa Clara, Cal.,
Or, Ch. Cooper & Co.,
191 Worth St., N.Y.

#### The Wonderful Euryscopic Lens. See Advertisement.

For SALE.—Photograph gallery with large receipts, less expense to run it, clearing more money than any gallery with same investment in the market. No bonus asked. Sold at inventory price. Satisfactory reasons for selling. For particulars, address,

"CAMERA,"
Middletown, New York.

The Wonderful Euryscopic Lens. See Advertisement.
USF: WAYMOUTH'S

Wanted.—A first-class retoucher, will pay twelve dollars per week. Send samples of work, and picture of self, to

> M WOLFE, 106 S. Main St., Dayton, Ohio.

FOR SALE, in order to retire from the photographic business, my gallery in perfect running order, doing a business of two to three hundred a week. Has netted me \$14,000 the last four years. Best location in the city to make money. Rooms large and convenient, covering an area of 50 x 80 feet. Two skylights. About 15,000 good paying registered negatives. Will sell for what it will inventory; between \$3500 and \$4000. Worth Double. \$2000 cash, balance to suit. Best chance ever offered in this Journal. Address, L. W. Felt,

147 and 149 Chicago Ave., Chicago.

#### Wilson's Lantern Journeys. See Advertisement.

For Sale.—At less than half cost. A globe lens 14 x 17, a superior instrument and good as new, cost \$135. Mounted on folding bed camera box with 15 x 15 inch plateholder with kits 4-4 size. Has one extra front and fine focusing screw. Will sell the whole for \$70 cash.

C. E. MEYERS, Mohawk, N. Y.

#### Lantern Slides, \$5 per doz.

LARGE ROLLER PRESSES FOR SALE.—Chilled iron rollers twenty inches long and nine inches diameter, with connecting adjustable gearing. A magnificent machine in perfect order and for sale low. Also another of same style, rollers twelve inches long and four inches diameter. For prices, apply to Benerman & Wilson,

Philadelphia.

#### WAYMOUTH'S VIGNETTE PAPERS.

For Sale.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Benerman & Wilson.

USE WAYMOUTH'S VIGNETTE PAPERS.

ACCESSORI

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of WILSON, HOOD & Co., 822 Arch Street.

Philadelphia, Dec. 27, 1876. Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for Portraiture. such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co., Exhibtion Grounds, Dec. 27, 1876. Messrs. Wilson, Hood & Co., Philada.

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use, were never opened from their original packages They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the Photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us. -W., H. & Co.

Office Centennial Photo. Co., Centennial Grounds, Nov. 6, 1876. Messrs. Wilson, Hood & Co.,

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 61 x 81 as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide, will decide next week. All the operators are loud in their praise of the little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly,

C. SEAVER, JR.

FOR THE SUMMER SEASON OF 1577.

#### Seavey's Backgrounds and Accessories.

Jewell Landscape, From the Mountain Top, Canandaigua Lake, Evangeline, Allonge Sea Shore, Sarony Seavey's Garden, S. & F. Eastlake-Interior. Stein Parlor, Mora Satin.

Garden Seat, No. 2, The Mora Balustrade, Papier-Mache Rocks-Large, Medium, and Small. Artificial Ivy, &c., &c., &c.

Particular attention for the coming summer is being paid to Landscape, Mountain, and Sea Shore designs, with appropriate Accessories.

Eminent Foreign Photographers, attracted by the artistic quality of our productions, are favoring us with their patronage. Samples to be immediately returned, sent on application to responsible parties.

> LAFAYETTE W. SEAVEY, 8 Lafayette Place, New York.

#### WAYMOUTH'S VICNETTE PAPERS.

Mr. Charles Waldack, who is known to many of our readers, writes in the Photographic Times as follows: As Robinson's Trimmer is getting to be used universally, I think I will do a good turn to photographers in telling them how to sharpen the little wheel when it gets dulled by use. I owe it to a photographic friend here, and although some may know it, I am sure many do not. Make a groove in a piece of lead by means of the Trimmer, put in it a little fine emery and a drop of oil, and run the Trimmer forward and back in the groove until it is sufficiently sharp. There is something else about the Trimmer; ascertain by trial which side of the wheelshould be on the inside of the zinc or iron mat to cut best, and mark it.

#### Lantern Slides, \$5 per doz.

#### Hance's Photographic Spe-See Advertisement. cialties.

BURREL'S CHART AND HINTS TO PATRONS .-Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this Journal. Price, \$1.25, unmounted, by mail, or by express mounted.

USE WAYMOUTH'S VIGNETTE PAPERS.

### Wilson's Lantern Journeys. See Advertisement.

Hance's Photographic Specialties. See Advertisement.

#### SITUATIONS WANTED.

No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.

By a lady artist in Cleveland, Ohio, who can paint on plain or albumen paper. Address, E. Ristiark, No. 45 South Eleventh St., Phila., Pa.

By a practical photographer, thoroughly up in all parts of the business, retouching especially. Recommendations from leading city galleries. Specimens sent to those meaning business. Will be at liberty October 1st. Address, E. G. Robinson, Richfield Springs, N. Y.

By an artist who thoroughly understands every branch of the business, having an experience of over ten years. Will work in one or all departments, or run a good gallery on shares. Address, Mr. A. L. H., Lodi, Seneca Co., N. Y., in care of J. N. Voorhees.

As operator or printer. Can retouch. Address, Geo. A. Kerris, Ponti, Marion Co., Ill.

By a married man, seven years in the business. A situation as operator, retoucher, or printer. Reference and specimens if required. Address, C. B. Rugg, Argus office, Jersey City, N. J.

By a young man, to print, operate, retouch, or will run a gallery on shares. Samples of work if desired. Address, Business, 51 East Oneida St., Oswego, N. Y.

By a young man of five years' experience in the business. Would run a gallery on shares with privilege of buying. Address, M. B. James, care M. E. Beckwith & Sou, Cor. Pearl and Detroit Sts., Cleveland, Ohio. By a young man of six years' experience, as operator, assistant operator or printer, in first-class gallery. Can furnish the best of references, and will work for moderate salary. Photographs, Ferrotypes and Views. Address, Morgan, Lock Box 34, Springfield, Mass.

In a first-class gallery, as operator and manager, either or both. References given and required. Address, Pose, care of N. H. Busey, Fayette and Charles Sts., Baltimore, Md.

In a first-class gallery as general help, have had six years' experience in good 'galleries. Salary light. To a good situation can retouch, operate, print, and tone, or anything that is done in a first-class gallery. Address, C. L. Weed. Photographer, Romeo, Mich.

By a young man in a good gallery as assistant, can operate and retouch, would like an engagement so as to learn more about chemicals. Good reference. Address, Photographer, Box 508, Rochester, N. Y.

By an artist in ink, crayon, and fine retoucher, a situation in a first-class gallery. Reference exchanged. Address for one month, C. R. F., Box 14, Malone, N. Y.

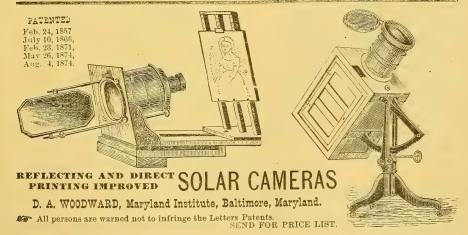
By a young lady in a first-class gallery, as retoucher and general assistant, can furnish best city references. Address, L. B., 1170 Michigan Avenue, Chicago, Illinois.

By a lady in a gallery, is a good retoucher of negatives, also finishes photographs in water colors and india ink, or tend reception-room. Address, Mrs. E. Gray, 1783 Broadway, New York.

As landscape operator or printer. Address, H. Fatsinger, 532 Walnut St., Philadelphia.

By a young lady, a situation as photograph retoucher in some first-class gallery. Address, Lock Box 25, Marlboro, Mass.

By a lady of eight years' experience, a position at desk in some first-class gallery. Also understands mounting and retouching. Best of references given. Address, Miss M. A. Coles, care G. Frank E. Pearsall, 298 Fulton St., Brooklyn, N. Y.



#### SECOND

# Centennial Lantern Journey.

This Journey is devoted mainly to the gems of the Main Building, and includes one hundred of the choicest works of art in CERAMICS; BRONZES, GLASSWARE, CARVINGS, TERRA-COTTA WARE, MUSICAL INSTRUMENTS, STATUARY, etc., and brings before us, in all their beauty, many of the most lovely groups of skilfully wrought artistic works that were ever portrayed by the beautiful art of photography.

#### LIST OF SLIDES.

```
50. 2233—Educational department, Russian section.
51. 2225—Pottery, Spanish section.
52. 2226—Carved Sideboard, Spanish section.
53. 2329—Egyptian section, Main Building.
54. 2118—Door of a Mosque, Egyptian section.
55. 2330—Egyptian Camel-Saddles.
66. 2187—Pottery of the Danish section, Main Building.
67. 2165—Mammoth Japanese Vase.
68. 2017—Japanese Mirror and Bronzes.
69. 2170—Porcelain Ware, Japanese section.
60. 2175—Porcelain Ware, Japanese court.
61. 2015—Dorcelain Ware, Japanese court.
62. 2167—Japanese Bronze and Silver Birds.
63. 2186—Japanese Bronze Birds.
63. 2186—Japanese Toys.
64. 2193—Japanese Toys.
65. 2171—Japanese Toys.
66. 2172—Japanese Toys.
67. 2121—Chinese Court, exterior.
68. 2203—Chinese Court.
69. 2128—Round Top Bedstead, Chinese section.
70. 2006—Artificial Flowers, Chinese section.
71. 2369—Seven-storied Pagoda.
72. 2323—Chinese Annex, Main Building.
73. 2007—Argentine Mineral Exhibit.
74. 2159—Gauchos and Horse Trappings.
75. 2321—Argentine section, Main Building.
76. 2216—Peruvian Mummies and Pottery.
78. 2008—Chilian Mineral exhibit.
77. 2216—Peruvian Mummies and Pottery.
78. 2008—Chillan Mineral exhibit.
79. 2166—Punisian Court, Main Building.
80. 2179—Terra-cotta, Portuguese section.
82. 2180—Terra-cotta Ware, Portuguese section.
83. 2154—Papier Mache Figures, Portuguese section.
84. 2061—Viti's Alabaster Vases.
85. 2081—Viti's Alabaster Roman Vases.
86. 2098—Mott's Fountain.
87. 2001—United States Chemical Department.
            1. 2120-The Main Building "through the Trees."
                                                                                                                                                                                                                                                                                                                                                                                                                      50. 2233-Educational department, Russian section.

    1. 2120—The Main Building "through the Trees."
    2. 1865—Main Building, north side.
    2027—Main Building, transept towards northeast.
    4. 2028—South Gallery of the Transept.
    5. 1921—Statue, "Out in the Rain."
    6. 2307—Norwegian Peasants.
    7. 2387—The Clockmaker, Swedish section.
    8. 2349—The Dying Elk.
    9. 2362—Swedish Peasants.
    10. 2041—Swedish Ornamental Pottery.
    11. 2918—Porcelain Firenlace and Candelabra. Swedi

     11. 2218—Porcelain Fireplace and Candelabra, Swedish
                                                                                      section.
     12. 2160-Victoria Court—Austrian section, Main Bldg.
13. 2214—Shell-work from the Bahama Islands.
14. 2215—Curiosities from the Gold Coast.
     15. 2045-Doulton Pottery
 15. 2045—Douitton Fottery.
16. 2075—Daniell's China Court.
17. 2033—Daniell's China Court.
18. 2034—Daniell's China Court.
19. 2279—Barnard's Babies and Cradles.
20. 2301—Brown, Westhead, Moore & Co.'s exhibit of Terra-cotta.
20. 2301—Browti, Westnead, Moore & Co. S extribited the Co. S extribited
                                                                                                                                                                                                                                                                                                                                                                                                                        86. 2098-Mott's Fountain.
                                                                                                                                                                                                                                                                                                                                                                                                                      87. 2001—United States Chemical Department.
88. 2091—United States Chemical Department.
89. 2003—Wenck & Co.'s Perfumery Stand.
90. 2100—Crystal Fountain.
     39. 1827—German Bronzes.
     40. 2050-Austrian section, Main Building.
                                                                                                                                                                                                                                                                                                                                                                                                                        91. 2156-Hertz & Co.'s Furniture exhibit.
 40. 2050—Austrian section, Main Building.
41. 2009—Bohemian Glassware, Austrian section.
42. 2010—Bohemian Glassware, Austrian section.
43. 2011—Glassware, Austrian section.
44. 2047—Glassware, Austrian section.
45. 2131—Austrian Bent-wood Furniture.
46. 2062—Porcelain Ware, Austrian section.
47. 2236—Porcelain Ware, Austrian section.
48. ——Religious Plastic Figures.
49. 2107—Puessian section.
                                                                                                                                                                                                                                                                                                                                                                                                                   91. 2156—Hertz & Co.'s Furniture exhibit.
92. 2191—American Musical Department.
93. 2101—American Book Trade Association exhibit.
94. 2317—Origin of our Flag.
95. 2048—American Glassware.
96. 2252—American Gas Fixtures.
97. 2255—American Picture Frames and Statuary.
98. Statuary—your choice of subject.
99. Statuary—your choice of subject.
100. 2064—View from the Reservoir.
     49. 2127—Russian section, Main Building.
```

The Readings for this Journey are now issued in pamphlet form, for 50 cents; but they will be furnished free to all who buy Wilson's Lantern Journeys, with which they will be published in a future edition.

The second column of numbers, in the above list, refers to the Catalogue of Centennial Photographic Co.—
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							10 x 12,	
C,		21/2 66	16	66	14 "	17 x 20,	14 x 17,	93 00
3,		3 66	19	66	16¾ "	18 x 22,	17 x 20,	140 00
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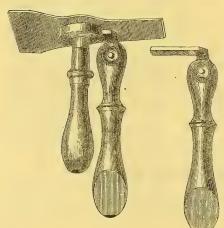
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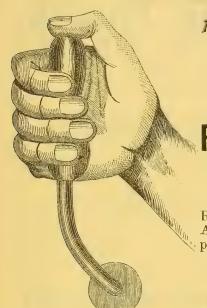
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+ 6	3, 4-4	4.6	7	66		 45	00	6.6	7,18	3-22	4.6	*****			200	00
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4-4 66										
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1123—Statue, "Blind Man's Buff."

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1176—Statue, "Orphans."

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1215—Statue, "Girl as Butterfly."

1215—Statue, "Girl as Butterfly."

1215—Statue, "Girl as Butterfly."

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1945—General Washington's Carriage.
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2008—Chilian Mineral Exhibit—Main Building.
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2010—Bohemian Glassware, Austrian Section.
2011—U. S. Chemical Department—Main Building.
2015—Porcelain Vases, Japanese Section.
2016—Japanese Vases—Main Building.
2017—Japanese Mirror and Bronzes.
2018—Transept, Main Building.
2017—Japanese Mirror and Bronzes.
2018—Transept, Main Building.
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2030—Italian Boy and Monkey.
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2034—Paniel's China Court.
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2113—Glassware—English Section, Main Building.
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-Mrs. Maxwell's Exhibit—Colorado Building.
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2189—Brazilian Court.
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2204—Main Building, from South Gallery.
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2302—Russian Het—Agricultural Hall.
2302—Russian Het—Agricultural Hall.
2302—Russian Hut—Agricultural Hall.
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2337—French Reigious Figures.
2338—Newman's Lantern Exhibit.
2349—Dying Elk.
2359—Section Agricultural H
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$ 2 \times 2\frac{7}{8}  2\frac{1}{8} \times 3\frac{1}{8}  2\frac{1}{8} \times 3\frac{1}{4}  2\frac{3}{8} \times 3\frac{3}{8} $	$3\frac{1}{2} \times 4\frac{7}{8}$ $3\frac{5}{8} \times 5\frac{1}{8}$ $4 \times 5\frac{3}{8}$ $4\frac{3}{8} \times 6\frac{3}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$ $6 \times 8$ $6\frac{1}{4} \times 8\frac{1}{4}$ $6\frac{1}{2} \times 8\frac{1}{2}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$2\frac{5}{8} \times 3\frac{5}{8}$ $2\frac{7}{8} \times 4\frac{1}{4}$	5 x 7 5½ x 7½	7 x 9 7½ x 9½	FOR STEREOGRAPHS.
3\frac{3}{8} \times 4\frac{3}{8} 3\frac{3}{8} \times 4\frac{5}{8}	$5\frac{1}{2} \times 7\frac{1}{2}$ $5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$ $7\frac{3}{4} \times 9\frac{3}{4}$	Arch Tops. Round Cornered. Round. $3\frac{1}{16} \times 3\frac{3}{4} \qquad 3\frac{1}{16} \times 3\frac{3}{4} \qquad 3 \times 3$ $3 \times 3 \qquad 3 \times 3$

The above sizes suit the Collins Card Mounts, and photographers knowing that they can be always had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

#### FOR SALE BY ALL DEALERS.

BENERMAN & WILSON, Manufacturer's Agents, PHILADELPHIA, PA.

# HOW TO DO IT!

# Circular to Lantern Exhibitors.

A great many parties purchase a lantern and a lot of slides and seem to think all they have to do to

# MAKE THE EXHIBITION GO,

is to hoist a screen and project the pictures, and everybody will run and see what they have to show.

## NEVER A GREATER MISTAKE

than this was made, for you have to push hard in this business as well as in any other. An old exhibitor tells us, and truly too, that one of the best ways is to get some organized association or body, such as the Grangers, Odd Fellows, Masons, Temperance Workers, Engineers, or Sunday-school people to take shares with you. They can force the sale of tickets, make better arrangements for halls, &c., and thus benefit you more than if you tried to work alone.

The best taking things now are our

## CENTENNIAL EXHIBITIONS.

Everybody is interested; the pictures are beautiful; they give opportunity for much instruction and entertainment, and draw full houses.

On other pages you will find lists of our slides, and we can send you the two Journey books for \$1.00, or Wilson's Lantern Journeys, complete, including the Centennial Journeys (describing 800 subjects) for \$2.

## GO INTO IT

properly and you can make it pay.

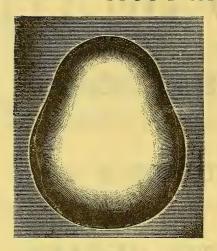
## BENERMAN & WILSON,

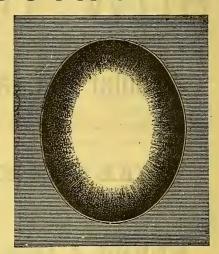
LARGEST AMERICAN DEALERS IN LANTERN SLIDES, Etc.,

116 N. Seventh St., Philadelphia.

FULL CATALOGUES, 25 CTS.

# WAYMOUTH'S





# VIGNETTING PAPERS

ARE NOW MADE OF TWO SHAPES, as shown in the drawings above. They consist of finely gradated, lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest, and best means of producing vignette pictures ever offered.

# RECENTLY IMPROVED.

The quality of the "papers" has just been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a letter from one of them, Mr. Ormsby, who has sent us also some exquisite vignettes:

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send them all that shape.

E. D. ORMSBY, Chicago.

#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

"First-class."—"The sample sent answers perfectly."—"I consider them first-rate articles."—"They answer the purpose admirably."—"They are the best vignettes I have ever had, and as you can print in full sunlight, they are a great saving of time."—"They could not be better, oblige me with another packet."—"I find them excellent, giving much softer pictures than the old way."—"I have tried one of the Vignette Papers, and like it much; send me packets two and three."—"I am much pleased with them, and shall thank you to send me another packet."—"I did not need any copies of testimonials, having well-known by experience that your Vignette Papers were superior to anything I have ever used."—"I found those you sent before excellent."—"Vignetting Papers received and tested; can't be beat. I use by cutting an opening in a piece of cardboard and tacking to the printing-frame, when I am ready for printing vignettes in the very best manner."—"Waymouth's Vignette Papers I have tried, and they are just what I have been wanting for years."

Any number sent on receipt of price, by any stockdealer, or by

BENERMAN & WILSON, Manufacturers,

(See opposite page.)

PHILADELPHIA.

# WAYMOUTH'S VIGNETTE PAPERS.

(DESIGNS COPYRIGHTED.)

of all pictures, the **Winnetty** is the most artistic.

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

## WAYMOUTH'S VICNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE, AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

#### THEY NEED BUT ONE ADJUSTMENT TO PRINT ANY QUANTITY.

They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Whole-size, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

#### PRICES:

In parcels containing one o	f each size.	Nos. 1	to 15, assorted colors		\$1 00
Assorted sizes and colors, b	y number, r	er pa	ckage of fifteen		1 00
	d sizes and	colors	, for Cartes, by number, per d	lozen	50
" 6, 7, 11, 12, and 13 "	44	66	Large Cartes and Victorias,	by number, per d	loz 75
" 8, 9, 10, 14, and 15 "	"	66	Cabinets and Whole-size,	" " "	1 00
" 16, 17, and 18, "	44	66	Half " "	66 66	1 25

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

BENERMAN & WILSON, Manufacturers, 116 N. 7th Street, Philada.

FOR SALE BY ALL DEALERS.

# **AMERICA**

Contains no Larger Stock

and Variety of

# LANTERN SLIDES

Than ours. For several years we have made them

Our Specialty!

AND WE ARE NOW UNDOUBTEDLY

{Ahead!}

BOTH IN QUANTITY
AND PRICES.

# **MAGIC LANTERNS**

Of all kinds, and Chemicals, also supplied.

Parties who wish to buy such goods should before purchasing examine our FOUR CATALOGUES, which we mail for twenty-five cents.

#### WE PUBLISH

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**K**antern

**J**ourneys,

A Lecture Book describing graphically, as an eyewitness, 800 beautiful places and things in all parts of the world, including 2 Centennial Journeys. **H**agic

Jantern.

A Monthly Journal, devoted to the interests of lantern lovers.

\$1 per year, post-paid.

Special estimates and other information given gladly. No substituting of Slides. Prices very low.

PROMPTNESS OUR RULE.

BENERMAN & WILSON, Photo. Publishers,

116 NORTH SEVENTH ST., PHILADELPHIA.

# Hance's Photographic Specialties

#### Hance's Bath Preservative.

A sure preventive of pinholes, stains, &c. It preserves the bath in good working condition, and will be found worth its weight in gold. \$1.00 per bottle.

#### Hance's Double Iodized Collodion.

The peculiarities of this Collodion are good keeping qualities, its improvement by age, and the richness of effect produced in the negative, the film being perfectly structureless. \$1.50 per lb.; 80 cts. per  $\frac{1}{2}$  lb.

#### Elbert Anderson's Portrait Collodion

Is made according to the formula used by Mr. Anderson in Mr. Kurtz's gallery in New York. It is especially adapted to portrait work. \$1.75 per fb.; 90 cts per ½ fb.

#### Hance's White Mountain Collodion

Is adapted more especially to outdoor work, and for quick working, delineating foliage, frost-work, or sky, it stands unrivalled. It is made after the private formula used by that celebrated mountain artist, B. W. Kilburn, of Littleton, N. H. \$1.50 per \( \mathbb{h} \); 80 cts. per \( \frac{1}{2} \) \( \mathbb{h} \).

## Curtis' Niagara Falls Collodion

Is another used for landscapes. The wonderfully beautiful views made by Mr. Curtis, of the great cataract, with this collodion, have a world-wide reputation. \$1.50 per lb.; 80 ets. per  $\frac{1}{2}$  lb.

## Trask's Ferrotype Collodion

Is made especially for positive pictures. Mr. Trask has no superior in this class of work, and this collodion is made after his formula. \$1.50 per  $\mathbb{B}$ .; 80 ets. per  $\frac{1}{2}$  fb.

#### Hance's Peculiar Portrait Collodion

Is peculiar in that it is prepared without bromides, and is adapted for use with Black's acid bath. Formula on the bottle. \$1.50 per 15.; 80 cts. per ½ 15.

### Cummings' Grit Varnish

Gives a very fine surface for retouching. 40 cts. per 6 oz. bottle.

## Hance's Silver Spray Gun Cotton.

Prepared with great care, and free from acid, very soluble, gives good intensity so that no redevelopment is necessary, gives perfect detail, and a film pure and structureless. 50 cts. per oz.

### Hance's Delicate Cream Gun Cotton

Is adapted to those who like a very delicate, soft-working collodion, giving all the modelling, especially in the Rembrandt style, and with light drapery. Its sensitiveness renders it particularly adapted for children, or any work that requires short exposure. 80 cts. per oz.

## Gill's Concentrated Chromo Intensifier

Is intended to strengthen the negative. It imparts a beautiful tone and gives excellent printing qualities, 50 cts. per bottle.

## Hance's Ground-Glass Substitute

Is simply what its name implies, a substitute for ground-glass for any purpose that is used for in the gallery—for vignette glasses, for a retouching varnish, for softening strong negatives, for the celebrated Berlin process, for ground-glass for cameras, for glazing sky and side lights, for obscuring studio and office doors, for printing weak negatives. 50 cts. per bottle.

(READ SUCCEEDING PAGE.)

# HANCE'S

# Photographic Specialties



# AHEAD!



## HIGHEST PREMIUM AWARDED

AT THE CENTENNIAL EXPOSITION

Having received the Highest Award for Photographic Specialties, I feel more confidence than ever in offering my manufactures to the Photographic fraternity. My exhibit was an extremely modest one, being taken from stock, put up in original packages without any attempt at display. Yet it carried off the prize over all the exhibits put up in cut glass decanters with ribbon-tied stoppers, proving that the medal was awarded for MERIT ALONE.

# GROUND-GLASS SUBSTITUTE.

ONE OF THE MOST USEFUL THINGS MADE.

READ THE FOLLOWING:

MR. A. L. HANCE.

Dear Sir: I am pleased to inform you that the gallon of Ground-Glass Substitute came safely and is just what I wanted. The surface for retouching which it gives is superb.

I shall want more of the same sort when this supply is

exhausted.

Very truly yours,

W. G. C. KIMBALL,

Concord, N. H.

FOR SALE BY ALL STOCK-DEALERS.

NO RETAIL ORDERS FILLED. ORDER OF YOUR DEALER.

ALFRED L. HANCE, Philadelphia.

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# WILSON, HOOD & CO.

ESTABLISHED 1865.

# PHOTOGRAPH REQUISITES, FRAMES,

STEREOSCOPES & VIEWS.

# 822 Arch St., Philadelphia.

OCTOBER 1, 1877.

DEAR SIR: As we desire to clean our stock, and make room for other goods, we have decided to offer the following goods at quoted prices. Many of them are unused, and all are in very fair condition. Terms, Cash with order. Lenses subject to one week's trial, money refunded if they do not prove satisfactory. In addition to articles named, we have a number of Job Lots of Frames, Passepartouts, Mats, and Stereoscopic Views, of which we will send sample lots to any desired amount. We offer you an opportunity to get a very good assortment of above named goods, for a small amount of money, which we trust you will appreciate and forward your orders speedily.

1	3 inch Globe Lens, \$20 00	1 16 (1-16) Tube Boston Gem Box (second
1	8 " " 30 00	hand),
2	1 Harrison Portrait Lens (no flange),	1 5 x 8 A. Op. Co. Box (2d quality), 14 00
_	each, 10 00	1 No. 52, 4-4 S. S. A. Op. Co. Box, 30 00
7	8-4 Harrison Portrait Lens, 50 00	1 " 4, 8-10 D. S. B. A. Op. Co. Box, . 35 00
i	8 / E A " " 40 00	1 No 41 10-12 " " 35 00
i	9.4 Pootteron 66 66 75.00	1 No 5 11 14 D S'R " " 57 00
1	8-4 E. A. " "	1 No. 4½, 10-12 " " . 35 00 1 No. 5, 11-14 D. S. B. " " . 57 00 1 " 55, 11-14 " " " . 57 00
1	3 H. B. & H. " (no nange), . 15 00	1 D Ct-tt A TI 97 21 90 00
Ţ	½ (no name) "	1 Bergner Stereo Cutter, A. T., 27 x 31 . 20 00
1	pair & Darlot R. & P. Lenses, 15 00	1 " 4-4 " oval, 20 00
	$6\frac{1}{2} \times 8\frac{1}{2}$ T. A. Dallmeyer Lens, 30 00	1 " Cabinet " Square 30 00
1	½ Voigtlander Portrait Lens, C. S 30 00	2 Green Rep Child's Lounges, each, 8 00
2	½ " " each, 35 00	1 Brook's Card Glace Press, 3 00
1	3 C. " " " 60 00	3 Nason Head-screens, each, 9 00
1	12 " " " each, 35 00 23 C. " " " " 60 00 4-4 " " " 55 00	5 " Background Carriages, . " 3 75
	pair No. 2 Steinheil Lenses, C. S., 45 00	4 Pedestals (W. H. & Co., Nos. 1 and 2),
1	No. 5 " " , 55 00	each, 8 50
î	No. 5 " " " 55 00 " 90 00	2 Seavey Painted Divans, each, 4 50
	No. 13 D. S. B. A. Op. Co. Box, (second	1 " " Cabinet, 16 20
•	hand), 20 00	1 " Wainscoating, 13 50
1		1 " Balustrade,
	No. 56 14-17 D. S. B. A. Op. Co. Box,	2 Witte's ½ gal. Evaporating Dishes, each, 2 50
	(second hand),	
	No. 30 4-8 Stereo, D. S. B. A. Op. Co.	5 boxes French Aniline Colors, " 3 50 5 copies Vogel's Reference Book, " 1 00
	(second hand),	
	No. 25 7 x 10 D. S. B. A. Op. Co. Box,	50 Brauns' Carbon Panoramas, " 150
	(second hand), 60 00	6 " " Game Pieces, " 600
1	4-4 Swing Front Box,	1 A. Op. Co. Levelling Stand, 5 00

Asking a careful perusal of this circular, and soliciting your orders for any of the goods named in it, or any others required in your business, we remain, Yours, very truly,

WILSON, HOOD & CO.



"For Utility and Fitness."

## AWARDED A MEDAL

At the Centennial Exhibition, 1876.

Do not Waste Time with a Knife and Glass, but try Prof. Robinson's invention.



# Robinson's Photograph Trimmer

IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING PHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGANTLY THAN A KNIFE.

#### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

#### A Trimmer and Ten Inches of Guides Mailed for \$3.50.

(Oil the Wheel Bearings with Sewing Machine Oil.)

# Robinson's Metallic Guides,

#### FOR USE with the ROBINSON PRINT-TRIMMER.

These Guides are Made of Stout Iron and are Turned in a Lathe, so that they are Mathematically True.

OVAL, ROUND, ELLIPTIC, and SQUARE, of all sizes; various shapes for Stereoscopic work, Drug Labels, etc., etc.

We have the following regular sizes always on hand at 10 cents per inch, the longest way of the aperture, the fractions counting as one inch.

Special sizes made to order at 15 cents per inch, the longest way of the aperture.

#### REGULAR SIZES:

	OVALS.		Square or Round-Cornered.
$ \begin{array}{c} 2 \times 2_{8}^{7} \\ 2_{8}^{1} \times 3_{8}^{1} \\ 2_{8}^{1} \times 3_{4}^{1} \\ 2_{8}^{2} \times 3_{8}^{3} \end{array} $	$3\frac{1}{2} \times 4\frac{7}{8}$ $3\frac{5}{8} \times 5\frac{1}{8}$ $4 \times 5\frac{3}{8}$ $4\frac{5}{8} \times 6\frac{3}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$ $6 \times 8$ $6\frac{1}{4} \times 8\frac{1}{4}$ $6\frac{1}{2} \times 8\frac{1}{2}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$2\frac{5}{8} \times 3\frac{5}{8}$	5 x 7	7 x 9	For Stereographs.
$2^7_8  imes 4^1_4$	$5_4^1 \times 7_4^1$	71 x 91	Arch Tops. Round-Cornered. Round
$3\frac{3}{8} \times 4\frac{3}{8}$	$5^1_2 \times 7^1_2$	$7\frac{1}{2} \times 9\frac{1}{2}$	$3_{\frac{1}{16}} \times 3_{\frac{3}{4}}^{3}$ $3_{\frac{1}{16}} \times 3_{\frac{3}{4}}^{3}$ $3 \times 3$
$3\frac{3}{8} \times 4\frac{5}{8}$	$5\frac{5}{8} \times 7\frac{5}{8}$	$7\frac{3}{4} \times 9\frac{3}{4}$	3 x 3 3 x 3

The above sizes suit the Collins Card Mounts, and photographers knowing that they can always be had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

EDWARD L. WILSON, Manufacturer's Agent, PHILADELPHIA, PA.

FOR SALE BY ALL DEALERS.



# ROSS' Portrait and View Lenses

We have now successfully introduced to the American Photographers the Ross Lenses, and by our increased sales we know they are appreciated. At the Centennial Exhibition many fine photographs were exhibited by photographers, and ourselves, made with the Ross Lenses, which attracted great attention.

While Ross & Co. are the oldest manufacturers of Photographic Lenses in existence, they also keep up with the requirements of the fraternity, by constantly manufacturing new combinations and improving on those already in existence. They have lately perfected, and will soon furnish us stock of, a new series of Card Lenses, extra rapid, peculiarly adapted for babies, and people who will not be quiet. We will give notice of their arrival.

#### WE HAVE NOW IN STOCK

Portrait Lenses, from 1-4 to 15 x 18.

Cabinet Lenses, Nos. 1, 2, and 3.

Card Lenses, Nos. 1, 2, and 3.

Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.

Symmetricals.

Instantaneous Doublets, all sizes.

Medium Angle Doublets, all sizes.

Large Angle Doublets, all sizes.

Stereographic Lenses, all sizes.

Symmetricals.

New Universal Lens.

Numerous testimonials pronounce them to be the best, as well as the cheapest Foreign Lenses ever offered to the American Photographer. We will mail price-list on application, and promptly fill all orders.

PART OF THE ROSS CENTENNIAL LENSES ARE STILL UNSOLD.

# Steinheil's Sons'APLANATIC Lenses.

We now have a full stock of these Celebrated Lenses, at the following prices:

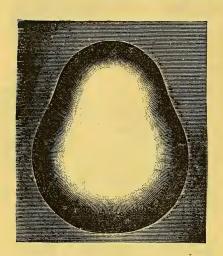
No. 1-1-4 size, .		$3\frac{1}{2}$ in	ch focus,		\$25 (	00	No. 5-10-12 size,.	13½ inch focus,	. \$70 00
2-1-2 " .		54 6			30 (	00	6-13-16 " .	10章	. 110 00
3-4-4 " .		7 6	"		45 (	00	7-18-22 " .		. 200 00
4-8-10 ".	. 1	04 6	"		60 (	00	8-20-24 ".	•	. 350 00

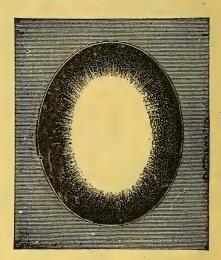
Nos. 1 and 2 are in matched pairs for Stereoscopic Work.

We feel sure that at least one of these lenses is needful for the successful prosecution of your business, and so solicit your orders.

Wilson, Hood & Co. SOLE AGENTS FOR 822 Arch St., Philadelphia, Pa.

# **WAYMOUTH'S**





# Vignetting Papers

ARE MADE OF TWO SHAPES, as shown in the drawing above. They consist of finely gradated lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest, and best means of producing vignette pictures ever offered.

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The quality of the "papers" has been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a testimonial from Mr. Ormsby, who has sent us also some exquisite vignettes.

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send them all that shape.

E. D. ORMSBY, Chicago.

#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

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Any number sent on receipt of price, by any stockdealer, or by

EDWARD L. WILSON, Manufacturer,

(See opposite page.)

PHILADELPHIA.

ASK YOUR DEALER FOR THEM.

# WAYMOUTH'S VIGNETTE PAPERS.

(DESIGNS COPYRIGHTED.)

OF ALL PICTURES THE TIME IS THE MOST ARTISTIC

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

## WAYMOUTH'S VIGNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE,
AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

#### They need but one adjustment to print any quantity.

They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Wholesize, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

#### PRICES:

In parcels containing or	e of	each size, N	os. 1	to 15, assorted colors,	1 0	0
Assorted sizes and colors	, by	numbers, pe	er pa	ekage of fifteen,	1 0	0
Nos. 1, 2, 3, 4, and 5, as	sorte	d sizes and	color	s, for Cartes, by number, per dozen,	5	0
" 6, 7, 11, 12, and 13	667	. "	66	Large Cartes and Victorias, by number, per doz.,	7	5
" 8, 9, 10, 14, and 15	"	"	66	Cabinets and Whole-size, " "	1 0	0
" 16, 17, and 18,	66	"	66	Half " " " "	1 2	5

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

## EDWARD L. WILSON, Manufacturer,

116 North Seventh Street, Philadelphia.

ASK YOUR DEALER FOR THEM.

# WE STILL HAVE

FOR SALE LOW, THE FOLLOWING USED GOODS:

# Hermagis Lenses.

Three Cabinet size, ex. quick, \$100 00 | Two Card size, extra quick, . \$50 00 Two " quick, . 90 00 | Two " quick, . . . 40 00 At 33½ per cent. discount.

# Bergner's Stereo. Print Cutters.

Two Centennial size, and one ordinary size.

# Printing Frames,

A lot of 5-8, 8-10, 10-12, 13-16, 20-24 Printing Frames, American Optical Co.'s make, very low, in lots. Also, our

## Surplus Morrison Lenses,

OF THE FOLLOWING SIZES, Etc.:

Wide-Angle Stereo. Lenses, in pairs. Wide-Angle View Lenses, singly.

Rapid Group Lenses, D and F.

## Peerless Lenses.

1-4 and 1-2 size, in pairs. 1-4 and 1-2, and 4-4, singly. Ex. 4-4 and 8-4, singly.

# American Optical Co.'s Boxes and Holders.

Imperial Boxes, 8-10, Double Swing. Portrait Boxes, 8-10, 10-12 and 14-17. Venus Boxes, 8-10 and 10-12, D. S. View Boxes, Stereo., 8-10, 10-12, 14-17, 20-24, D. S.

# Also, one 17 x 21 D. S. B. Portrait Camera Box (two holders), platform stand, and covered bath, at a special bargain. Used very little.

The Lenses were made ESPECIALLY for us and we will GUARANTEE every one of them. Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained, and bear no other evidence of having been used.

# All these instruments and apparatus for sale at 25 per cent. discount from manufacturers' regular prices. Better price when a lot is taken.

Sent C. O. D., with permission to examine and try, if partial remittance accompanies order.

CENTENNIAL PHOTOGRAPHIC CO.,

Belmont Avenue, International Exhibition, Philadelphia, Pa.

# Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \*\* We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

For Sale.—The largest and best gallery in a town of 16,000 inhabitants. Newly fitted last spring. Running water, gas, low rent, lots of room; operating room 20 x 40 feet. No opposition in first-class work. Address

Lock Box 531, Logansport, Ind.

# Wilson's Lantern Journeys. See Advertisement.

FOR SALE.—A rare chance to purchase a good gallery very cheap for cash. Situated in a place of 7000 inhabitants; only one other gallery in the place. If you wish to buy a gallery, this is one chance in a thousand. Satisfactory reasons for wishing to sell.

For full particulars, address

H. GARRETT, Canandaigua, Ontario Co., N. Y.

#### Hance's Photographic Specialties. See Advertisement.

A Bargain for Some One.—I will sell to a cash purchaser my beautiful suite of rooms, situated in Providence, R. I. Will sell at a great sacrifice, as I have business requiring my attention elsewhere. Plenty of room for making good work, and first-class throughout. For particulars address

Photographer,

Box 211. Providence, R. I.

# The Wonderful Euryscopic Lens. See Advertisement.

FOR SALE.—Reilly's fine negatives of the Yosemite, California, Sierra Nevadas, Niagara, etc.

Apply to Edward L. Wilson.

USE WAYMOUTH'S

The best and relative cheapest Crayon Portraits in New York, by Francis Perl, 6 East Fourteenth Street. Price lists, when asked for, will be promptly sent.

#### Waymouth's Vignette Papers.

#### 1877----1878.

LAFAYETTE W. SEAVEY, Scenie Artist, Studio 8 Lafayette Place, New York, is designing new backgrounds, and preparing new accessories, for the coming Fall and Winter season. Prices, lowest consistent with good work.

#### Lantern Slides, \$5 per dozen.

GREAT chance to make money. If you can't get gold you can get greenbacks. We need a person in every town to take subscriptions for the largest cheapest, and best illustrated family publication in the world. Any one can become a successful agent. The most elegant works of art given free to subscribers. The price is so low that almost everybody subscribes. One agent reports making over \$150 in a week. A lady agent reports taking over 400 subscribers in ten days. All who engage make money fast. You can devote all your time to the business, or only your spare time. You need not be away from home over night. ean do it as well as others. Full particulars, directions and terms free. Elegant and expensive outfit free. If you want profitable work send us your address at once. It costs nothing to try the business. No one who engages fails to make great pay. Address

"The People's Journal,"
Portland, Maine.

Waymouth's Vignette Papers. VIGNETTE PAPERS.

# The Wonderful Euryscopic Lens. See Advertisement.

THE undersigned is open for engagement, and as is well known, is capable of undertaking any branch of the business. Twenty years of experience in painting, posing, operating, and printing.

JOHN L. GIHON,

1328 Chestnut St., Phila.

#### Waymouth's Vignette Papers.

For Sale,—Photograph gallery with larger receipts, less expense to run it, clearing more money than any gallery with same investment in the market. No bonus asked. Sold at inventory price. Satisfactory reasons for selling. For particulars, address,

"CAMERA,"

Middletown, New York.

#### Hance's Photographic Specialties. See Advertisement.

For Sale.—At less than half cost. A globe lens 14 x 17, a superior instrument, and good as new, cost \$135. Mounted on folding-bed camera box with 15 x 15 inch plateholder with kits 4-4 size. Has one extra front and fine focussing screw. Will sell the whole for \$70 cash.

C. E. MEYERS,

Mohawk, N. Y.

# The Wonderful Euryscopic Lens. See Advertisement.

Burrel's Chart and Hints to Patrons.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this journal. Price, \$1.25, unmounted, by mail, or by express, mounted.

#### Wilson's Lantern Journeys. See Advertisement.

# Waymouth's Vignette Papers. USE WAYMOUTH'S

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street,

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibition Grounds, Dec. 27, 1876.

Messrs. Wilson, Hood & Co.:

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our Company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use were never opened from their original packages. They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us.—W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876.

Messrs. Wilson, Hood & Co.:

The rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (cheek) on account. Have not had time to test VIGNETTE PAPERS.

the  $6\frac{1}{2} \times 8\frac{1}{2}$  as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide; will decide next week. All the operators are loud in their praise of the Little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly,

C. SEAVER, JR.

The Wonderful Euryscopic Lens. See Advertisement.

Lantern Slides, \$5 per doz.

#### SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a lady in a gallery doing first-class work; retouches negatives in a superior manner. Parties wanting good work, and are willing to pay well, will address Bromine, Providence, R. I.

By an artist in water colors, crayon, and retouching negatives; is also a practical operator of long experience. Parties willing to pay for such a man will address B. French & Co., 319 Washington Street, Boston, Mass.

Wanted by a young man of several years' experience at the business, also a knowledge of carbon printing; best of reference given as to character and ability. Address W. A. H., office of *Philadelphia Photographer*.

By a young man of good habits, with about eight years' experience as operator, printer, and toner, and general assistant, and is willing to make himself useful. Good recommendations. Address C. P., Ottawa, Ill., Box 1790.

A first-class negative retoucher, who will work for low wages, wants a steady and immediate situation in any State. Address Retoucher, 57 Myrtle Avenue, Brooklyn, N. Y.

A Philadelphian, a first-class operator of twenty years' experience, now operating in a western city, is desirous of returning to Philadelphia, is open for a situation. Address Weslein, in care of *Philadelphia Photographer*.

As retoucher, by a young lady. Lock Box 25 Marlboro, Mass.

By a good operator, retoucher, or to take charge of a gallery; well posted; seven years' experience. Wife is handy, and a good saleslady. No liquor or tobacco. References unexcelled. Garry Donaldson, 420 Boas Street, Harrisburg, Pa.

To work in India ink and crayon. Can also retouch. References exchanged. John Kavanagh, 25 Colfax Street, Cleveland, Ohio.

By a negative retoucher, or will operate. Wages not so much of an object as steady employment. Jos. E. Williams, New Athens, Ohio, Box 42.

By a young man as printer and toner, and general assistant in the dark room (city or country). Louis Schloerb, No. 118 S. 1st St., Brooklyn, E. D. Reference given.

As a printer, by a lady who has had several years' experience in Gutekunst's (and other) galleries. Can give best of reference. Mrs. F. Wilkinson, 2244 Amber Street, Philadelphia.

As operator or assistant; ten years' experience; would work this fall and winter for moderate salary. Good references given, and samples of work sent if required. Address J. L. Sweet, Photographer, Box 391, Clinton, Mass.

As operator; of ten years' experience, doing general work in gallery. Wages reasonable. Address Wm. Doud, Mill City, Pa.

An operator experienced in crowding business in large cities, desires to lease, or run a gallery on shares. Will give best references as to character and ability, and guarantees to place business on a paying basis if the obstacles are summountable by any one. Address "Operator," care N. C. Thayer & Co., 250 Wabash Avenue, Chicago, Ill.

The undersigned would like a situation as printer or dark room operator; has five years' experience in best galleries in the country. Good references and first-class work guaranteed. Address W. A., Box 1095, Adrian, Mich.

# G. GENNERT

# 38 Maiden Lane, New York

IMPORTER OF THE CELEBRATED

# S. &. M. DRESDEN Albumen Papers

SINGLE OR EXTRA BRILLIANT.

This paper has been imported by me to the great satisfaction of photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO,

Hyposulphite of Soda,
Sulphate of Iron,
Solid German Glass Baths,
Saxe Evaporating Dishes,
French Filter Paper,

Porcelain Trays.

# Ferrotype Plates.

I ALSO IMPORT EXTRA BRILLIANT

CROSS-SWORD PAPER.

For sale by all Stock-Dealers in the United States and Canada.

# REDUCTION IN PRICE!

# - THE CENTENNIAL PHOTOGRAPHIC CO.

Beg to announce that their

UNRIVALLED STEREOSCOPIC VIEWS

Statuary, Interiors, Exteriors,

Fancy Groups,
Works of Art,
Machinery, etc.

Making the most unrivalled collection ever published, have been

# REDUCED TO \$2.00 PER DOZEN.

THE FOLLOWING SIZES ARE ALSO MADE:

Card, Cabinet, 5 x 8,

 $8 \times 10$ ,  $13 \times 16$ , and  $17 \times 21$ .

Liberal Discount to the Trade. Catalogues supplied on receipt of a three-cent stamp.

Every Photographer Can Sell Them.

A L S O, —

# Magic Lantern Slides

Over 500 subjects of greater interest than any other class of subjects in this line

FOR SALE BY THE

# CENTENNIAL PHOTOGRAPHIC CO.,

Studio-Belmont Av., Exhibition Grounds, Philadelphia.

EDWARD L. WILSON, Prop'r.

City Office, 116 North Seventh St.

Dealers Supplied at the Best Rates.

# NEW AND IMPROVED LENSES!

STOCKDEALERS AND PHOTOGRAPHERS ARE INVITED TO MAKE TRIAL OF OUR CELEBRATED LENSES, THE SALE OF WHICH IS RAPIDLY AND CONSTANTLY INCREASING.

THEY CONSIST OF

# Cabinet, Portrait, View, Stereoscopic, and Copying Lenses.

THE PRICE IS FAR BELOW THAT OF OTHER FIRST-CLASS LENSES, WHILE THE QUALITY IS

#### ALL THAT THE MOST EXACTING REQUIRE!

THE VERY STRONGEST RECOMMENDATIONS FROM LEADING ARTISTS HAVE BEEN RECEIVED BY US.

# The 1-64, 1-9, 1-6, and 1-4 Sizes, for Multiplying Cameras, are greatly superior to the Jamin Lenses.

The "Imitation Dallmeyer" are made of the same glass as the Dallmeyers, and are declared by the best artists inferior to none. The immense sale of them is a sufficient proof of their superiority.

We would call attention to the low price of the Imitation Dallmeyer Stereoscopic Lenses, for out-door instantaneous, and in-door quick working; and we guarantee them superior to all others.

SEND FOR PRICES.

### BOSTON AGENTS FOR

# Wilson's Photographic Publications.

READ ALL THAT IS WRITTEN ON YOUR ART.
SUBSCRIPTIONS RECEIVED FOR THE PHILADELPHIA PHOTOGRAPHER.

## GEO. S. BRYANT & CO.,

REMOVED TO No. 34 BROOMFIELD ST., BOSTON.

# THE PHOTOGRAPHER TO Reduction—HIS PATRONS!—in Price!

#### REDUCTION IN PRICE!

THIS little leaflet has become so popular as an advertising medium for photographers, and a means of communicating to their customers such information as they are asked to communicate by word of mouth every day, that we are induced to try to make it still more popular, and available to more of our



patrons by

#### A Great Reduction in Price.

The present low price of paper and labor has enabled us to do this, and hereafter we will supply this little work and

#### "SOMETHING NEW,"

Its companion leaflet (which is also a splendid advertising medium), at the rate of

#### \$15 PER 1000.

At this reduction we can not supply lots of less than 1000, though we will supply large and small quantities at the following rates:

500	copies	 \$9	00
1000	74	15	00
2000	"	 27	50
3000	"	 36	00
5000	".	 <b>50</b>	00

#### OVER ONE MILLION HAVE BEEN SOLD!

Parties ordering may have the annexed cut upon their cover, or a choice of several other fancy cuts which we have; the above is the newest.

We charge nothing extra for matter upon covers, and photographers may solicit advertisements enough from their citizens to pay the cost of the whole thing, if they are enterprising.

Samples sent to any who may desire it.

ELWARD L. WILSON, Publisher, 116 North 7th St., Philadelphia.

ORDERS RECEIVED BY ALL STOCK-DEALERS.

All persons are cautioned against copying these works as they are copyrighted property and we are determined to protect those who purchased them in their use. Information concerning pillages will be thankfully received.

# WM. B. HOLMES,

IMPORTER AND EXPORTER OF

# PHOTOGRAPHIC MATERIALS

OF EVERY DESCRIPTION,

644 & 646 BROADWAY, NEW YORK.

AGENT FOR

IMPROVED SOLAR CAMERAS,

VOIGTLANDER'S CAMERA TUBES AND LENSES,

AMERICAN OPTICAL CO.'S APPARATUS.

Depot for the Celebrated W. B. H. Albumenized Paper.

ALSO, AGENT FOR

# THE CENTENNIAL PHOTOGRAPHIC CO.'S

WORLD'S FAIR AND WORLD-RENOWNED VIEWS.

FOR

Stereoscopes, Graphoscopes, Albums and Frames. Statuary, Interiors, Exteriors, Works of Art, "Zoo" Garden and Fairmount Park, Philadelphia, etc., etc.

UNSURPASSABLE COLLECTION.

PRICE REDUCED TO \$2.00 PER DOZEN FOR STEREO. VIEWS.

The attention of Dealers and Photographers throughout the United States and Foreign Countries is respectfully invited to the advantages offered of a superior quality of materials, and extensive facilities for the execution of orders, which are respectfully solicited. Orders filled with care and despatch, and sent, if desired, with bill for collection by Express, to any part of the United States.

# WILLIAM B. HOLMES,

644 & 646 BROADWAY, NEW YORK.

# SCOVILL

# Manufacturing Company,

419 & 421 BROOME STREET,

— New Nork——

MERCHANTSIN

# ALL ARTICLES PHOTOGRAPHIC

FOREIGN AND DOMESTIC.

PROPRIETORS OF THE WORKS OF

# THE AMERICAN OPTICAL CO. NEW YORK,

S. PECK & CO., NEW HAVEN, CONN. SCOVILL MANUF'G CO., WATERBURY, CONN.

SOLE AGENTS FOR

MORRISON'S VIEW LENSES,

"PEERLESS" PORTRAIT LENSES, ENGLISH PORCELAIN WARE, FRENCH AND ENGLISH GLASS,

ALBUMENIZED PAPER-ALL MAKES, HANCE'S "PHOTO. SPECIALTIES," CENTENNIAL PHOTO. CO.'S VIEWS, GRAPHOSCOPES, STEREOSCOPES, &c.

The Greatest Stock in the World! Dealers Everywhere Supplied Low!

419—BROOME——421

SCOVILL MANUF'G CO., NEW YORK.

# AMERICA

Contains no Larger Stock and Variety of

# Lantern Slides

• → THAN OURS! →

FOR SEVERAL YEARS WE HAVE MADE THEM

"Our Specialty!"

AND WE ARE NOW UNDOUBTEDLY

Ahead!

BOTH IN QUANTITY
AND PRICES.

# Magic Lanterns

Of ALL KINDS, and CHEMICALS, also Supplied.

Our FALL STOCK has arrived, and by ordering NOW, you can have the best selections. Special inducements to large buyers.

Parties who wish to buy such goods should, before purchasing, examine our **FOUR CATALOGUES**, which we mail for twenty-five cents.

WE PUBLISH

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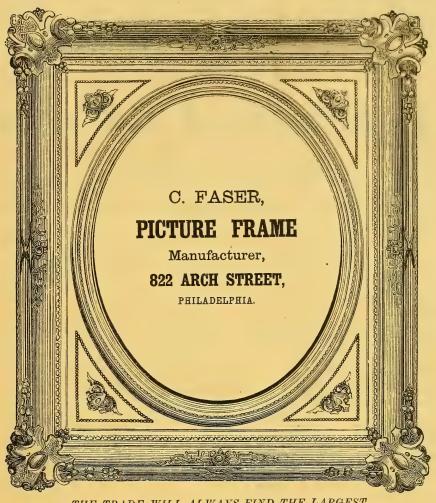
A Lecture Book describing graphically, as an eye-witness, 800 beautiful places and things in all parts of the world, including two Centennial Journeys. Magic Cantern

A Monthly Journal devoted to interests of Lantern Lovers.

\$1.00 per Year, post-paid.

Special estimates and other information given gladly. Promptness our rule.

EDWARD L. WILSON, Photo. Publisher, 116 North Seventh St., Philadelphia.



THE TRADE WILL ALWAYS FIND THE LARGEST
ASSORTMENT OF

# GOLD OVAL, SQUARE, FRAMES

Velvet Mats---English, Black & Display Mats.

# C. FASER,

Salesroom: No. 822 ARCH STREET, second floor.

PHILADELPHIA.

"A Delightful Book of Travels."

Has a Wonderful Sale.

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# Tantern Tourneys.

By EDWARD L. WILSON.

Editor of the "Philadelphia Photographer."

# FOURTH EDITION! — Now Ready! — FOURTH EDITION!

This work will be found entertaining to all who like to read about the beautiful places and things of this world.

The contents are divided into eight "Journeys," each one including a visit to 100 places, making 800 places in all, as follows:

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#### JOURNEY B.

Compiegne, Vienna,
Brussels, The Vienna ExAix la Chapelle, position,
Cologne, The Semmering

Up the Rhine, Pass, Potsdam, Saxony, Berlin, Munich,

Dresden, Southwest Germany.

#### JOURNEY C.

Italy, Rome, Lake Maggiore, Naples, Lake Como,

Pompeii, Milan, The Ascent of

Vesuvius, Verona, Venice, Puteoli,

Florence, Italian Art Galleries.

Pisa,

#### JOURNEY D.

Holland, Sweden, Denmark, Russia, Norway, Spain.

#### JOURNEY E.

Egypt, Turkey, Greece, Palestine, Syria, India.

#### JOURNEY F.

England, Scotland, and the U.S. of America.

#### JOURNEY G.

The Centennial Exhibition at Philadelphia.

#### JOURNEY H.

The Centennial Exhibition at Philadelphia.

It has been carefully prepared, and will be found amusing, very entertaining and instructive.

It contains 277 pages. Cloth bound, Gilt. Price, \$2.

EDW. L. WILSON, Photo. Publisher,

PHILADELPHIA, PENNA.

FOR SALE BY ALL DEALERS.

# Charles Cooper & Co.

### 191 WORTH ST., NEW YORK,

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PHOTOGRAPHIC CHEMICALS, strictly pure and of full weight.

CROSS-SWORD DRESDEN ALBUMEN PAPER, Single and Extra Brilliant.

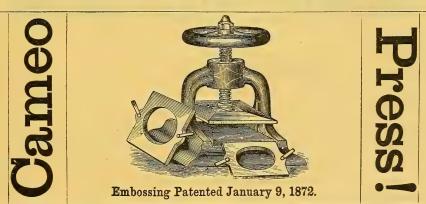
EVAPORATING DISHES.

GERMAN SOLID GLASS BATHS.

PORTRAIT LENSES—C. F. Usener's Celebrated.

The largest and most reliable house for Refining Waste and Residues.

# The Universal



This Press will cameo all sizes, from cards to cabinets, and is sold lower than any other that will do the same work. It has been greatly improved and made very complete in all its parts.

We furnish a card, victoria and cabinet size.

PRICE, \$20.00.

MANUFACTURED AND SOLD WHOLESALE AND RETAIL BY

### WILSON, HOOD & CO., 822 Arch Street, Philadelphia.

CAUTION.—Photographers are cautioned against buying other presses that may use an elastic embossing substance, as they are an infringement on the above.

R. J. Chute, Patentee.

### JAMES F. MAGEE & CO.

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# Photographic Chemicals

No. 108 NORTH FIFTH STREET,

PHILADELPHIA.

STOCK-DEALERS ONLY SUPPLIED.

## PHILADELPHIA WASHED EMULSION

Is a sensitive collodion, which by flowing upon glass or other plates prepares them for exposure in the camera, or for contact printing, without other labor; no bath, sensitizing solutions, organifier, or other addition being required. The negatives made by its use are of superior quality, and the professional and amateur photographer is always ready, and escapes the heavy luggage which is unavoidable when the silver bath is used. It is as quick working as bath plates, easy of development, and abundantly dense without intensification. It will keep indefinitely before use, and the plates will remain sensitive for a long time after coating.

Send for circular and particulars to

### THOMAS H. M'COLLIN,

Photographic Chemist,

Sole Agent,

624 ARCH ST., PHILADELPHIA.

# GIHON'S CUT-OUTS

Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

PRICE \$1.00 PER PACKAGE. Sent by mail on receipt of price.

Parties wishing special sizes, or large lots of a few sizes, may have them cut to order promptly, by addressing the manufacturer. No lot costing less than \$1.00 made at a time.

No printer should attempt to make medallion pictures without them.

#### THEY HAVE NO EQUAL FOR QUALITY.

Beware of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stock-dealer for GIHON'S CUT-OUTS, and see that they are in his envelopes with instruction circular included.

PROMENADE SIZE NOW READY!

SOLD SEPARATELY AT 50 cts. per dozen.

# GIHON'S OPAQUE.

IS DESIGNED FOR

COMPLETELY OBSCURING THE IMPERFECT BACKGROUNDS OF COPIES, RETOUCHING NEGATIVES,

FAULTY SKIES IN LANDSCAPES.

COATING THE INSIDE OF LENSES OR CAMERA BOXES, BACKING SOLAR NEGATIVES, COVERING VIGNETTING BOARDS,

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ALL THE REQUIREMENTS OF THE INTELLIGENT PHOTOGRAPHER IN THE PRODUCTION OF ARTISTIC RESULTS IN PRINTING.

#### WHEREVER YOU WANT TO KEEP OUT LIGHT, USE OPAQUE.

It is applied with a brush, dries quickly and sticks.

CUT-OUTS (thirty), \$1.00.

OPAQUE, 50 CENTS.

FOR SALE BY ALL DEALERS.

Address all orders to

Scovill Manufacturing Co.,

Or, JOHN L. GIHON, Inventor,

NEW YORK.

116 N Seventh St., Philadelphia, Pa

# ARTISTIC PHOTOGRAPHY.

A NEW WORK on PHOTOGRAPHY and ART.

ILLUSTRATED WITH 12 BEAUTIFUL PROMENADE PHOTOGRAPHS.

### By LYMAN G. BIGELOW,

Author of "Bigelow's Album of Lighting and Posing."

This is a beautifully gotten up work, and contains full instructions in every department of Photography.

**←** Price, \$5.00. ► →

EDWARD L. WILSON, Photo. Publisher,

For Sale by all Dealers.

116 North Seventh St., Philadelphia.

#### **IMPROVED**

# Photograph Covers

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

#### IT SERVES ALL THE PURPOSES OF AN ALBUM.

The covers are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener.

The following is a list of sizes and prices, without cards:

For Photogra	aph				Pe	r doze	n.			Pe	r hundr	ed.	
Card Size	Э,				\$1	50			•		\$10	00	
Cabinet S	iz	Э,			2	25					13	50	
EXTRA HEAVY COV	ERS	S.											
5-8 Size,					4	50					33	00	
4-4 "	٠.				6	00					40	00	
8-10"					8	00					56	50	
11-14"					9	00					65	00	

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price. Sena for some.

EDWARD L. WILSON, Photo. Publisher,
For Sale by all Dealers.

116 North Seventh St., Philadelphia.

# Studies in Artistic Printing.

By C. W. HEARN, author of the "PRACTICAL PRINTER."

Owing to the very flattering reception which attended the Author's former work, "The Practical Printer," he has, with more extended experience, ventured upon a second work, in which he has seen fit to more thoroughly combine "Studies in Printing," by way of further illustrating the matter of which he would write. For the better fulfillment of this design, negatives have been made especially for this purpose by Messrs. Rocher, Bigelow, Kent, Lamson, Draper & Husted, and Baker, in their usual superior style, being pronounced by all who have seen them as ranking among the very best that these well-known artists in photography have ever produced.

As in a former work, the varied formulæ and processes of manipulation were discussed in detail, it has been thought advisable that in THIS the subject should be treated with more conciseness. Those parties who have this former work of the Author will find this to be of intrinsic value, owing to its being embellished with

#### SIX FINE CABINET AND PROMENADE PORTRAIT STUDIES.

#### AMONG OTHER THINGS, IT CONTAINS

Suggestions on the Choice of Albumen Paper.

All the Best Silvering Baths, and Methods of
Treating the same.

New Views on the Relation of the Silver Bath to the Time of Floating.

The Different Effects Caused by the Time of Floating.

How to Tell when Paper is Floated too Long or too Short a Time.

Table for Time of Floating Paper under all Circumstances.

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The Important Relation Printing from the Negative Bears to the Toning Bath.

Fast Printing.

Dialogue between "Joe" and a Friend.

The Way to Success in Toning Lies in Printing.

The Different Effects Caused in Printing by the Preparation of the Silver Bath.

The Relation of the Silver Bath to the Printing from the Negative, and from this to the Toning Bath.

Acetate of Silver.

Success or Failure in Toning, Caused by the Strength, Purity, and Alkalinity of the Silver Bath.

Harmony, its Importance in Photography.

Why its Neglect Causes such Disastrous Results. The Beautiful in Toning, and How to Obtain it. A Few Hints About Managing Toning Baths,

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A NEW INVENTION!



### ROBINSON'S

STRAIGHT-CUT

Photograph Trimmer.

So great has been the success of Prof. Robinson's "Trimmer" for Oval and Arch-top Pictures, that he has been impelled to produce one for

#### STRAIGHT LINES.

The accompanying cut shows the shape of the tool and the manner of using it.

The disc or wheel is about one inch in diameter, so that a thin or thick glass form may be used with it.

### Photographers may now altogether Ignore the Knife.

This admirable Trimmer is always sharp and ever ready.

Once accustomed to it you will never again use the knife.

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The author has given the processes which his own experience and that of others have proved to be the best, and the whole being in a concise form is particularly adapted to the use of beginners. The work also contains a great many hints and suggestions which are useful to all.

Besides the Photographic Instruction and Rates of Postage, Notable Events in the History of Photography, Descriptions of the Principal Centennial Buildings, and a beautiful, colored Map of the City of Philadelphia, are included. The whole handsomely bound in clota, and now offered at the low price of 30 cents.

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Introduction,
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The Nitrate Bath.
The Collodion,
The Developer,
The Fixing Solution,

Other Manipulations— Pinholes,
Strengthening,
Tinting and Coloring,
Varnishing,
Drying and Dryers,
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Ferrotype Envelopes, Ferrotype Supports,
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OF GREAT ILLUMINATING POWER,

FOR ALL KINDS OF OUT-DOOR WORK AND GROUPS.

MADE BY

### VOIGTLANDER & SON.

They consist of two achromatic and symmetrical combinations, between which the central diaphragm is placed. The lens is perfectly aplanatic, i. e., it works with full aperture of the objectives. For the purposes of landscape photography, copying, for architectural subjects, and for groups in the studio, as well as outside, it is considered unrivalled. It is entirely free from distortion, chemical focus, and "ghosts," and the picture produced by it is mathematically correct. It is characterized by a great depth of focus and precise definition. The most important advantage of this new lens in comparison with others of similar kinds, consists in the great power of light it commands, and for this reason it is commended especially for groups, the pictures produced by it being most brilliant, also the light is spread equally all over the plate.

A very careful choice of the optical glass, of which the new lens is composed, makes it possible to secure a ratio of focus and aperture of about 6 to 1.

The width of angle embraced is between 65 and 85 degrees, according to the size of diaphragm used; as to rapidity, the new lens is more than twice as rapid as the orthoscopic lens, and only a little less than the long focus portrait lenses.

We have seven different sizes at the following prices:

No.	Diameter of Lens.	Equivalent Focus.	Back	Focus	Size of View or Landscape	v Size of Gro e. or Portrai	oup t. Price.
0,	 1 inch,	 5½ inch,	5 i	inch,	Stereo.	pictures,	\$30 00
1,	 1½ "	 9½ "	81/4	**	10 x 12,	7 x 9	, 50 00
Α,	 13/4 "	 11 "	93/4		11 × 13,	8 x 10	, 57 00
2,	 2 "	 12½ "	11	66	12 × 14,	10 x 12	l, 70 00
C,	 2½ "	 16 "	14	66	17 × 20,	14 x 17	, 93 00
3,	 3 "	 19 "	163/	"	18 x 22,	17 × 20	, 140 00
6,	 4 "	 26½ "	23½	2 "	22 × 26,	20 x 24	., 225 00

We have had quite a number of our best Photographers try this New Lens, and all speak of it in the highest terms, as possessing great depth and quickness. We have some groups made in Studio with No. 2, on  $8 \times 10$  plate, in twenty to thirty seconds, and with No. C, on  $14 \times 17$  plate, twenty-five to forty seconds.

J. Holyland, of Baltimore, writes us about No. 1 sent him: "I would say to its praise, that for Quickness and Depth, it far excels my expectations."

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Imperial Cards—Size,  $6\% \times 9\%$ .

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White, Gray, Granite-Blue, Pearl, Amber, Tea, Plain, also with Gilt Borders, and with Gilt or Red Beveled Edges.

See detailed advertisement in this number of the "PHOTOGRAPHIC TIMES."

PRICE LISTS FURNISHED ON APPLICATION.

# The Zentmayer Lens,

#### FOR VIEWS AND COPYING

These Lenses possess pre-eminently the following qualities:
Width of visual angle, ranging from 80° to 90°; depth of focus; extreme sharpness over the whole field; true perspective; freedom from all distortion in copying; portability and cheapness.

Each mounting is provided with a revolving Diaphragm, containing the stops of the different combinations for which they are designed. The larger ones are

provided with an internal shutter for making and storing the exposure.

No.	1,	$2\frac{1}{2}$	inch	focus,	3	х	3 1	plate,	\$20	0.0	No.	1	and	No	. 2	combined,		\$33 00
				66					25	0.0	44	2	64	**	3			40 00
				66	$6\frac{1}{2}$	х	81/2	44	30	00	66	3	46	66	4	44		55 00
					10	$\mathbf{x}$	12	66	42	0.0	"	4	66	66	5	66		75 00
••	5,	12	44	44	14	$\mathbf{x}$	17	46	60	0.0	66	5	66	66	6	46		110 00
46	6,	18	66	66	20	$\mathbf{x}$	24	44	90	0.0	- 66	1,	, 2 ar	nd 8	3,	44		48 00
											. "	3,	, 4 ar	nd å	í,	"		88 00

No. 3, with large mounting to combine with No. 4 and No. 5, \$35.

No. 1 and No. 2, specially adapted for Stereoscopic Views, are furnished in matched pairs. No. 1 and No. 2 single, not to combine with other sizes, \$36 a pair.

Lenses and mountings to form all six combinations, from 2½ to 18 inches. \$173.

JOSEPH ZENTMAYER, Manufacturer,

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The following houses are to be recommended as the best for photographers in their localities.

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W. H. ALLEN & BROTHER,		,		Detroit, Mich.
S. T. BLESSING,				New Orleans, La.
BLESSING & BROTHER,				
A. H. BALDWIN,	,			1 Chambers St., N.Y.
H. W. BRADLEY,				San Francisco, Cal.
J. P. BEARD & CO.,				Chicago, Ill.
F. S. CROWELL,				Mt. Vernon, O.
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GROSSKLAUS & RICKSECKER,				Navarre, Ohio.
H. GEORGE,				Indianapolis, Ind.
HOWE & BEECHER,				Columbus, O.
F. HENDRICKS,				Syracuse, N. Y.
WM. B. HOLMES,				644 Broadway, N. Y.
LONG & SMITH,				Quincy, Ill.
MOSELEY & BROTHER, .:		•		Madison, Wis.
H. D. MARKS,				Rochester, N. Y.
D. J. RYAN,				Savannah, Ga.
D. TUCKER & CO.,				Buffalo, N. Y.
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# Hance's Photographic Specialties

#### Hance's Bath Preservative.

A sure preventive of pinholes, stains, &c. It preserves the bath in good working condition, and will be found worth its weight in gold. \$1.00 per bottle.

#### Hance's Double Iodized Collodion.

The peculiarities of this Collodion are good keeping qualities, its improvement by age, and the richness of effect produced in the negative, the film being perfectly structureless. \$1.50 per 15.50 per 15.50

#### Elbert Anderson's Portrait Collodion

Is made according to the formula used by Mr. Anderson in Mr. Kurtz's gallery in New York. It is especially adapted to portrait work. \$1.75 per fb.; 90 cts per ½ fb.

#### Hance's White Mountain Collodion

Is adapted more especially to outdoor work, and for quick working, delineating foliage, frost-work, or sky, it stands unrivalled. It is made after the private formula used by that celebrated mountain artist, B. W. Kilburn, of Littleton, N. H. \$1.50 per fb.; 80 cts. per ½ fb.

#### Curtis' Niagara Falls Collodion

Is another used for landscapes. The wonderfully beautiful views made by Mr. Curtis, of the great cataract, with this collodion, have a world-wide reputation. \$1.50 per fb.; 80 ets. per  $\frac{1}{2}$  fb.

#### Trask's Ferrotype Collodion

Is made especially for positive pictures. Mr. Trask has no superior in this class of work, and this collodion is made after his formula. \$1.50 per 15.; 80 cts. per 12 ib.

#### Hance's Peculiar Portrait Collodion

Is peculiar in that it is prepared without bromides, and is adapted for use with Black's acid bath. Formula on the bottle. \$1.50 per lb.; 80 cts. per ½ lb.

#### Cummings' Grit Varnish

Gives a very fine surface for retouching. 40 cts. per 6 oz. bottle.

#### Hance's Silver Spray Gun Cotton.

Prepared with great care, and free from acid, very soluble, gives good intensity so that no redevelopment is necessary, gives perfect detail, and a film pure and structureless. 50 cts. per oz.

#### Hance's Delicate Cream Gun Cotton

Is adapted to those who like a very delicate, soft-working collodion, giving all the modelling, especially in the Rembrandt style, and with light drapery. Its sensitiveness renders it particularly adapted for children, or any work that requires short exposure. 80 cts. per oz.

#### Gill's Concentrated Chromo Intensifier

Is intended to strengthen the negative. It imparts a beautiful tone and gives excellent printing qualities. 50 cts. per bottle.

#### Hance's Ground-Glass Substitute

Is simply what its name implies, a substitute for ground-glass for any purpose that is used for in the gallery—for vignette glasses, for a retouching varnish, for softening strong negatives, for the celebrated Berlin process, for ground-glass for cameras, for glazing sky and side lights, for obscuring studio and office doors, for printing weak negatives. 50 cts. per bottle.

(READ SUCCEEDING PAGE.)

# HANCE'S

# Photographic Specialties



### AHEAD!



#### HIGHEST PREMIUM AWARDED

AT THE CENTENNIAL EXPOSITION

Having received the Highest Award for Photographic Specialties, I feel more confidence than ever in offering my manufactures to the Photographic fraternity. My exhibit was an extremely modest one, being taken from stock, put up in original packages without any attempt at display. Yet it carried off the prize over all the exhibits put up in cut glass decanters with ribbon-tied stoppers, proving that the medal was awarded for MERIT ALONE.

# TRY GROUND-GLASS SUBSTITUTE.

ONE OF THE MOST USEFUL THINGS MADE.

READ THE FOLLOWING:

MR. A. L. HANCE.

Dear Sir: I am pleased to inform you that the gallon of Ground-Glass Substitute came safely and is just what I wanted. The surface for retouching which it gives is superb.

I shall want more of the same sort when this supply is

exhausted.

Very truly yours,

W. G. C. KIMBALL,

Concord, N. H.

FOR SALE BY ALL STOCK-DEALERS.

NO RETAIL ORDERS FILLED. ORDER OF YOUR DEALER.

ALFRED L. HANCE, Philadelphia.

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Appendix No. 10. WM. D. H. WILSON.

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# PHOTOGRAPH REQUISITES, FRAMES,

STEREOSCOPES & VIEWS;

# 822 Arch St., Philadelphia.

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DEAR SIR: We ask your careful attention to the following changes in prices:

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	Shell. Glossy
1-9, per box, \$0 35 \$0 40 4-4, per box	\$1 45 \$1 60
$1-6, \dots, 65$ $70 \mid 5-7, \dots, 65$	1 45 1 60
1-4,	28 00 30 00
1-2,	20 00 22 00

#### PATENT FRENCH GLASS.

				(FOR	NEGA	LTI	VE	S.	AN	D	PICTURES.)				
Per box.				P	er box.		4				Per box.				Per box.
$6\frac{1}{2} \times 8\frac{1}{2}$ , \$4 00 .				11 x 14,	\$5 00						15 x 18, \$5 50				20 x 24, \$7 00
8 x 10, 4 50 .															
$10 \times 12, 475$ .				$14 \times 18$ ,	5 00					4	$18 \times 22, 675$				25 x 30, 8 00
		A	bov	e is best g	glass fo	or t	the	pu	rpe	ose	e ever imported k	у	us.		

#### CONVEX GLASS.

Card, Oval and Square,				per doz., \$0 45	Chromo-Photo. Outfit	3, .		. each, \$2 00
Cabinet, "	•	٠	٠	" 1 25				

#### VELVET FRAMES.

Card (cotton), Cabinet "			. fro	m \$3 75	per doz.	Card (Silk),			. from	a \$6 00	per doz.
Cabinet "			. "	6 50	- "	Cabinet "			. "	9 00	"

#### KNELL'S CHAIRS.

											Misses' Chair, Figured Plush,	
66	1	Permanent	seat,	9	inch	fringe,			12	75	" Lead-colored Coleroile,	17 00
66	2	"	"	6	66	"			8	75	Infants' Chair,	8 75
66	5	66	66	9	66	" 2d	qu	al.,	, 10	50	No. 1, Revolving Pharoah Chair	21 00
Chil	d's	Lounge, Re	p Cov	ve1	r, Gre	een \$8.7	5,	Re	d 9.	25	" 2, Permanent " "	18 50

#### CENTENNIAL 5x8 STATUARY.

Framed in 8½ x 11½, ¾ inch, Enameled Frame, B	Black Mat, per doz., \$12 00
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#### PHOTOGRAPHS OF CELEBRITIES.

. . . . . . each, \$0 08 | Imperials by Mora, . . . . . each, \$0 20 New subjects, as fast as issued, can be found in our stock. Our assortment of goods for the holiday trade is well selected and complete. Sample orders are solicited.

We remain, yours very truly,

WILSON, HOOD & CO.



"For Utility and Fitness."

#### AWARDED A MEDAL

At the Centennial Exhibition, 1876.

Do not Waste Time with a Knife and Glass, but try Prof. Robinson's invention.



# Robinson's Photograph Trimmer

IS A SUBSTITUTE FOR A KNIFE

FOR TRIMMING PHOTOGRAPHS, AND DOES THE WORK MUCH MORE EXPEDITIOUSLY AND ELEGANTLY THAN A KNIFE.

#### IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

It does not cut but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once. For ovals and rounded corners it is worth its weight in gold.

#### A Trimmer and Ten Inches of Guides Mailed for \$3.50.

(Oil the Wheel Bearings with Sewing Machine Oil.)

# Robinson's Metallic Guides,

#### FOR USE with the ROBINSON PRINT-TRIMMER.

These Guides are Made of Stout Iron and are Turned in a Lathe, so that they are Mathematically True.

OVAL, ROUND, ELLIPTIC, and SQUARE, of all sizes; various shapes for Stereoscopic work, Drug Labels, etc., etc.

We have the following regular sizes always on hand at 10 cents per inch, the longest way of the aperture, the fractions counting as one inch.

Special sizes made to order at 15 cents per inch, the longest way of the aperture.

#### REGULAR SIZES:

	OVALS.		Square or Round-Cornered.
$ 2 \times 2\frac{7}{8}  2\frac{1}{8} \times 3\frac{1}{8}  2\frac{1}{8} \times 3\frac{3}{8}  2\frac{3}{8} \times 3\frac{3}{8} $	$3\frac{1}{2} \times 4\frac{7}{8}$ $3\frac{5}{8} \times 5\frac{1}{8}$ $4 \times 5\frac{3}{8}$ $4\frac{3}{8} \times 6\frac{3}{8}$	$5\frac{3}{4} \times 7\frac{3}{4}$ $6 \times 8$ $6\frac{1}{4} \times 8\frac{1}{4}$ $6\frac{1}{2} \times 8\frac{1}{2}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$2\frac{5}{8} \times 3\frac{5}{8}$	5 x 7	7 x 9	For Stereographs.
$2^7_8 \times 4^1_4$	$5\frac{1}{4} \times 7\frac{1}{4}$	$7\frac{1}{4} \times 9\frac{1}{4}$	Arch Tops. Round-Cornered, Round.
$3\frac{3}{8} \times 4\frac{3}{8}$	$5\frac{1}{2} \times 7\frac{1}{2}$	$7\frac{1}{2} \times 9\frac{1}{2}$	$3\frac{1}{16} \times 3\frac{3}{4}$ $3\frac{1}{16} \times 3\frac{3}{4}$ $3 \times 3$
$3\frac{3}{8} \times 4\frac{5}{8}$	$5\frac{5}{8} \times 7\frac{5}{8}$	$7\frac{3}{4} \times 9\frac{3}{4}$	3 x 3 3 x 3

The above sizes suit the Collins Card Mounts, and photographers knowing that they can always be had at the low price of ten cents per inch, would do well to make their sizes accord, as orders can also be filled more quickly. Ten days is required to make special sizes.

# EDWARD L. WILSON, Manufacturer's Agent, PHILADELPHIA, PA.

FOR SALE BY ALL DEALERS.



# ROSS' Portrait and View Lenses

We have now successfully introduced to the American Photographers the Ross Lenses, and by our increased sales we know they are appreciated. At the Centennial Exhibition many fine photographs were exhibited by photographers, and ourselves, made with the Ross Lenses, which attracted great attention.

While Ross & Co. are the oldest manufacturers of Photographic Lenses in existence, they also keep up with the requirements of the fraternity, by constantly manufacturing new combinations and improving on those already in existence. They have lately perfected, and will soon furnish us stock of, a new series of Card Lenses, extra rapid, peculiarly adapted for babies, and people who will not be quiet. We will give notice of their arrival.

#### WE HAVE NOW IN STOCK

Portrait Lenses, from 1-4 to 15 x 18.

Cabinet Lenses, Nos. 1, 2, and 3.

Card Lenses, Nos. 1, 2, and 3.

Triplets, Nos. 1, 2, 3, 4, 5, 6, and 7.

Symmetricals.

Rapid Symmetricals.

Instantaneous Doublets, all sizes.

Medium Angle Doublets, all sizes.

Large Angle Doublets, all sizes.

Stereographic Lenses, all sizes.

New Universal Lens.

Numerous testimonials pronounce them to be the best, as well as the cheapest Foreign Lenses ever offered to the American Photographer. We will mail price-list on application, and promptly fill all orders.

PART OF THE ROSS CENTENNIAL LENSES ARE STILL UNSOLD.

## Steinheil's Sons' APLANATIC Lenses.

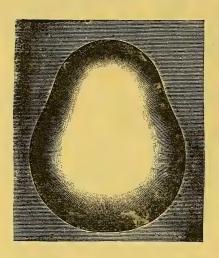
We now have a full stock of these Celebrated Lenses, at the following prices:

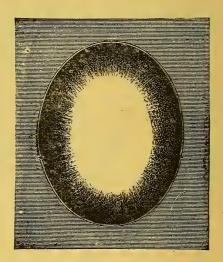
No. 1-1-4 size,		3½ i	nch	focus,				\$25	00.	No. 5-10-12 size, 13½ inc	h focus,		\$70	00
2—1-2 "		$5\frac{1}{4}$	66	66				30	00	6-13-16 " 164 "	** •		110	00
3-4-4 "		7	66	66				45	0.0	7-18-22 "			200	00
4-8-10 "	. :	101	66	66				60	00	8-20-24 "		•	350	00
		Nos	s. 1 :	and 2	are	in	m	atch	ied j	pairs for Stereoscopic Work.				

We feel sure that at least one of these lenses is needful for the successful prosecution of your business, and so solicit your orders.

Wilson, Hood & Co. SOLE AGENTS FOR 822 Arch St., Philadelphia, Pa.

### **WAYMOUTH'S**





# Vignetting Papers

ARE MADE OF TWO SHAPES, as shown in the drawing above. They consist of finely gradated lithographed designs, mounted on protecting sheets of non-actinic paper, and are the lightest, neatest,

and best means of producing vignette pictures ever offered.

The quality of the "papers" has been much improved by the substitution of a peculiar French, fibrous, hard calendered paper, which is not only less opaque but has other qualities which produce quickly the most lovely and soft vignettes possible. We consider this a great improvement, as do others to whom we have sent samples. Below we give a testimonial from Mr. Ormsby, who has sent us also some exquisite vignettes.

The package of Vignette Papers has been received and tried; they are just the thing. They are a great improvement over the others; they will print in a little more than half the time required for the others, and the results are everything that can be desired, as you can see by samples inclosed. Please fill my order and send bill. I like the pear-shape best. Send them all that shape. E. D. ORMSBY, Chicago.

#### FROM PROFESSIONAL AND AMATEUR PHOTOGRAPHERS.

"First-class."—"The sample sent answers perfectly."—"I consider them first-rate articles."—"They answer the purpose admirably."—"They are the best vignetters I have ever had, and as you can print in full sunlight, they are a great saving of time."—"They could not be better, oblige me with another packet." "I find them excellent, giving much softer pictures than the old way."—"I have tried one of the Vignette Papers, and like it much; send me packets two and three."—"I am much pleased with them, and shall thank you to send me another packet."—"I did not need any copies of testimonials, having well-known by experience that your Vignette Papers were superior to anything I have ever used."—
"I found those you sent before excellent."—"Vignetting Papers received and tested; can't be beat. I use by cutting an opening in a piece of cardboard and tacking to the printing-frame, when I am ready for printing vignettes in the very best manner."—"Waymouth's Vignette Papers I have tried, and they are just what I have been wanting for years."

Any number sent on receipt of price, by any stockdealer, or by

EDWARD L. WILSON, Manufacturer,

(See opposite page.)

PHILADELPHIA.

ASK YOUR DEALER FOR THEM.

# WAYMOUTH'S VIGNETTE PAPERS.

(DESIGNS COPYRIGHTED.)

OF ALL PICTURES THE WINNETTE IS THE MOST ARTISTIC

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive, The shading should blend gradually from the dark tint nearest to the figure off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

#### WAYMOUTH'S VIGNETTE PAPERS.

THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE,
AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

#### They need but one adjustment to print any quantity.

They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Wholesize, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

#### PRICES:

In parcels containing or	e of e	ach size, N	Tos. 1	to 15, assorted colors,	00
Assorted sizes and color	s, by	numbers, p	er pa	ekage of fifteen,	0.0
Nos. 1, 2, 3, 4, and 5, as	sorted	sizes and	color	, for Cartes, by number, per dozen,	50
" 6, 7, 11, 12, and 13	. 66	"	66	Large Cartes and Victorias, by number, per doz.,	75
" 8, 9, 10, 14, and 15	<i></i>	"	66	Cabinets and Whole-size, " 1	00
" 16, 17, and 18,	"	66	66	Half " " " 1	25

#### (SEE OPPOSITE PAGE.)

When ordering, state the number and color you want.

#### EDWARD L. WILSON, Manufacturer,

116 North Seventh Street, Philadelphia.

ASK YOUR DEALER FOR THEM.

### WE STILL HAVE

FOR SALE LOW, THE FOLLOWING USED GOODS:

### Hermagis Lenses.

Three Cabinet size, extra quick, . \$100 00 | Two Card size, extra quick, . . . \$50 00 Two " quick, . . . 90 00 | Two " quick, . . . . 40 00 At 33\frac{1}{2} per cent. discount.

### Bergner's Stereo. Print Cutters.

One Centennial size, and one ordinary size.

## Printing Frames,

A lot of 5-8, 8-10, 10-12, 13-16, 20-24 Printing Frames, American Optical Co.'s make, very low, in lots. Also, our

### Surplus Morrison Lenses.

ALL GONE.

Peerless Lenses.

ALL SOLD.

# American Optical Co.'s Boxes and Holders.

Imperial Boxes, 8-10, double swing. Portrait Boxes, 8-10, 10-12 and 14-17. Venus Boxes, 8-10 and 10-12, double-swing. View Boxes, stereo., 8-10, 10-12, 14-17, 20-24, double-swing.

### Also, one 17 x 21 D. S. B. Portrait Camera Box (two holders), platform stand, and covered bath, at a special bargain. Used very little.

As most of our boxes were supplied with two holders, we also have a quantity of single holders for the above boxes for sale cheap.

The lenses were made ESPECIALLY for us and we will GUARANTEE every one of them.

Witness our own work done with them.

The apparatus is all in good working order, some of the boxes are but slightly stained, and bear no other evidence of having been used.

### All these instruments and apparatus for sale at 25 per cent. discount from manufacturers' regular prices. Better price when a lot is taken.

Sent C. O. D., with permission to examine and try, if partial remittance accompanies order.

#### CENTENNIAL PHOTOGRAPHIC CO.,

Belmont Avenue, International Exhibition, Philadelphia, Pa.

### Specialties.

ADVERTISING RATES FOR SPECIALTIES,—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely, Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line-in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. Rep We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

PHOTO-CHROME or Ivorytype outfits complete, with convex glass, tools, chemicals, sample picture painted. Instruction price, \$5.00; book on coloring, 25 cents. Photographs painted to order, card size, \$2.00; cabinets, \$3.00. Stereos. wanted. Send stamp for circular to

> LARDNER & Co., Artists, 1228 Chestnut Street, Philadelphia.

#### Wilson's Lantern Journeys. See Advertisement.

THERE is a sign on one of the stores in New York that reads thus:

> "The poorest goods sold, The highest prices charged. Oh, how this world Is given to lying!"

I agree entirely with these sentiments. ANDREW H. BALDWIN, Dealer in Photographic Materials, No. 1 Chambers Street, New York. Send for my Price List of 48 pages.

#### Hance's Photographic Specialties. See Advertisements.

Wanted.—A live photographer, a first-class operator and retoucher, who is a quick and sure workman, to form a partnership. Or I will rent rooms all fitted, or will let on shares. The only gallery up one flight of stairs in a city of 7000 inhabitants. My trade is first-class with firstclass customers. You must have some money on hand, or you need not reply.

Address

"PHOTOGRAPHER,"

#### The Wonderful Euryscopic Lens. See Advertisement.

#### SEAVEY'S

NEW

#### BACKGROUNDS AND ACCESSORIES

FOR THE

#### 1877-FALL AND WINTER CAMPAIGN.-1878

The newest fashionable Backgrounds introduced by New York Photographers, are

#### Seavey's Snow Landscapes,

Price, per square foot, 25 cents.

Novel and superb pictures produced by using the above, in conjunction with our Winter Foregrounds. Sure to attract customers.

#### Seavey's New Interiors.

Rich in design and fine in execution, at from 25 to 30 cents per square foot.

Seavey's Antique Cabinets, never before offered to the public. Rich in design, . \$40 00 Seavey's Fireplace and Cabinet, combined, an invaluable accessory, . . . Seavey's Antique Chairs, . . . . . . . 12 00

#### KURTZ, MORA. SARONY,

use no Backgrounds but Seavey's. Designs copyrighted.

Headquarters for leading styles in Photographic Backgrounds and Accessories,

> L. W. SEAVEY'S Scenic Studio, 8 Lafayette Place, New York City.

Box 2013, Laneaster, Ohio. Waymouth's Vignette Papers.

USE WAYMOUTH'S VIGNETTE PAPERS.

For Sale.—A first-class gallery, with frame and picture store, in a thriving city of 15,000. Operating room, with running water, on second floor. There is every convenience for making good work. It has always been a paying stand. Must give it up on account of poor health. If not sold soon, will let the photographic rooms, or will give a good operator a chance to run on shares.

For further particulars, address

J. D., Box 790, Altoona, Pa.

#### Waymouth's Vignette Papers.

For Sale.—A first-class gallery in Baltimore, on one of the best business streets in the city. Everything handy; good north light; first-class instruments. Good reason for selling. Any one meaning business and wants a bargain,

Address

A. FAUL, JR., Baltimore, Md.

#### Lantern Slides, \$5 per dozen.

GREAT chance to make money. If you can't get gold you can get greenbacks. We need a person in every town to take subscriptions for the largest cheapest, and best illustrated family publication in the world. Any one can become a successful agent. The most elegant works of art given free to subscribers. The price is so low that almost everybody subscribes. One agent reports making over \$150 in a week. A lady agent reports taking over 400 subscribers in ten days. All who engage make money fast. You can devote all your time to the business, or only your spare time. You need not be away from home over night. You can do it as well as others. Full particulars, directions and terms free. Elegant and expensive outfit free. If you want profitable work send us your address at once. It costs nothing to try the business. No one who engages fails to make great pay. Address

"The People's Journal,"

Portland, Maine.

### The Wonderful Euryscopic Lens. See Advertisement.

THE undersigned is open for engagement, and as is well known, is capable of undertaking any branch of the business. Twenty years of experience in painting, posing, operating, and printing.

John L. Gihon, 1328 Chestnut St., Phila.

#### Waymouth's Vignette Papers.

Burrel's Chart and Hints to Patrons.—Your gallery is not complete without them. For particulars, see advertisement in January, February, and March, 1876, issues of this journal. Price, \$1.25, unmounted, by mail, or by express, mounted.

#### Wilson's Lantern Journeys. See Advertisement.

For Sale.—A first-class gallery, in this city, of long standing. The owner desires to retire from business. The gallery will be rented low. Apply to T. H. McCollin,

624 Arch Street, Philadelphia.

#### Hance's Photographic Specialties. See Advertisements.

#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street,

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly,

WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibition Grounds, Dec. 27, 1876.

Messrs. Wilson, Hood & Co.:

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our Company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmever lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use were never opened from their original packages. They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

#### USE WAYMOUTH'S VIGNETTE PAPERS.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us.—W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876.

Messrs. Wilson, Hood & Co.:

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide; will decide next week. All the operators are loud in their praise of the Little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly,

C. SEAVER, JR.

#### Waymouth's Vignette Papers.

The Wonderful Euryscopic Lens. See Advertisement.

Lantern Slides, \$5 per doz.

#### SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a first-class retoucher, printer, toner, and poser. Samples of work shown. First-class gallery preferred. James Smith, 232 Shawmut Avenue, Boston, Mass.

As retoucher. Understands the whole business, but cannot work in the water on account of rheumatism; could print, etc. Central or southern New York preferred. Address J. Leon Pease, Adams, Jefferson Co., N. Y.

By a lady artist in crayon and drawing, a permanent position as negative retoucher, having some knowledge of it. Address M. F. H., 833 Race street, Philadelphia.

By a first-class operator; can retouch. The South preferred: Address W. H. Cook, Wood's gallery, 208 Bowery, N. Y.

By a good printer and assistant operator; a rapid retoucher and worker in oil, crayon, and ink. Nine years' experience. Studied under two fine artists. Can give good recommendations. Address Frank S. DuRand, Box 154, Akron, Ohio.

By a practical experienced operator, retoucher, and good printer or toner, a situation for the next six months at \$15 per week. Address Box 105, Myannis, Mass.

By a young man of three years' experience in all departments; can furnish the best of reference as to character and ability; terms moderate. Address J. C. F., P. O. Box 633, Ravenna, Ohio.

An A 1 operator, ten years' standing, open for an engagement in first-class gallery; is a good retoucher and poser, also full experience in printing. Samples of work, etc., sent to those who mean business. Address W. Floyd S., Selma, Ala.

As operator, or would take charge of a gallery. Best reference given and required. 12 years' experience. R. Devere, 37 Broome Street, Brooklyn, E. D., L. I.

By a young lady of four years' experience, a situation as negative retoucher. Address Lock Box 25, Marlboro, Mass.

By an operator in a first-class gallery; specimen negative sent to responsible persons; can retouch and print, having been twelve years' in one of the leading galleries. Reference furnished as to standing, ability, etc. H. A. Lester, Cambridgeport, Mass.

As operator; steady and reliable; can show good references, etc., on application to G. E. Rogers, 47 Grove Street, New Haven, Conn.

As operator or carbon printer, in St. Louis, New Orleans, or any southern city; fifteen years' experience as operator, and has printed chromotypes for a first-class house in New York. W. W. Anderson, 427 Yonge Street, Toronto, Canada.

As landscape operator or printer; first-class reference. Address H. W. Fatsinger, 532 Walnut Street, Philadelphia.

As operator; first-class work guaranteed; best references. Address Photographer, 1009 West Jackson Street, Chicago.

A photographer of taste and ability desires a situation; first-class in dark-room, light and toning; salary reasonable for permanent position. Address B., Box 4266, New York City Post Office.

#### USE WAYMOUTH'S VIGNETTE PAPERS.

# G. GENNERT

# 38 Maiden Lane, New York

IMPORTER OF THE CELEBRATED

# S. &. M. DRESDEN Albumen Papers

SINGLE OR EXTRA BRILLIANT.

This paper has been imported by me to the great satisfaction of photographers for the last eight years, and has not been surpassed by the many different brands sprung up since.

ALSO.

Hyposulphite of Soda,
Sulphate of Iron,
Solid German Glass Baths,
Saxe Evaporating Dishes,
French Filter Paper,
Porcelain Trays.

# Ferrotype Plates.

I ALSO IMPORT EXTRA BRILLIANT

#### CROSS-SWORD PAPER.

For sale by all Stock-Dealers in the United States and Canada.

### REDUCTION IN PRICE!

# THE CENTENNIAL PHOTOGRAPHIC CO.

BEG TO ANNOUNCE THAT THEIR

UNRIVALLED STEREOSCOPIC VIEWS

Statuary, Interiors, Exteriors,

Fancy Groups,
Works of Art,
Machinery, etc.

Making the most unrivalled collection ever published, have been

# REDUCED TO \$2.00 PER DOZEN.

THE FOLLOWING SIZES ARE ALSO MADE:

Card, Cabinet,  $5 \times 8$ ,  $8 \times 10$ ,  $13 \times 16$ , and  $17 \times 21$ .

Liberal Discount to the Trade. Catalogues supplied on receipt of a three-cent stamp.

Every Photographer Can Sell Them.

— A L S O, —

# Magic Lantern Slides

Over 500 subjects of greater interest than any other class of subjects in this line

FOR SALE BY THE

#### CENTENNIAL PHOTOGRAPHIC CO.,

Studio—Belmont Av., Exhibition Grounds, Philadelphia.

EDWARD L. WILSON, Prop'r.

City Office, 116 North Seventh St.

Dealers Supplied at the Best Rates.

## NEW AND IMPROVED LENSES!

STOCKDEALERS AND PHOTOGRAPHERS ARE INVITED TO MAKE TRIAL
OF OUR CELEBRATED LENSES, THE SALE OF WHICH IS
RAPIDLY AND CONSTANTLY INCREASING.
THEY CONSIST OF

# Cabinet, Portrait, View, Stereoscopic, and Copying Lenses.

THE PRICE IS FAR BELOW THAT OF OTHER FIRST-CLASS LENSES, WHILE THE QUALITY IS

#### ALL THAT THE MOST EXACTING REQUIRE!

THE VERY STRONGEST RECOMMENDATIONS FROM LEADING ARTISTS HAVE BEEN RECEIVED BY US.

# The 1-64, 1-9, 1-6, and 1-4 Sizes, for Multiplying Cameras, are greatly superior to the Jamin Lenses.

The "Imitation Dallmeyer" are made of the same glass as the Dallmeyers, and are declared by the best artists inferior to none. The immense sale of them is a sufficient proof of their superiority.

We would call attention to the low price of the Imitation Dallmeyer Stereoscopic Lenses, for out-door instantaneous, and in-door quick working; and we guarantee them superior to all others.

SEND FOR PRICES.

#### BOSTON AGENTS FOR

## Wilson's Photographic Publications.

READ ALL THAT IS WRITTEN ON YOUR ART.
SUBSCRIPTIONS RECEIVED FOR THE PHILADELPHIA PHOTOGRAPHER.

#### GEO. S. BRYANT & CO.,

REMOVED TO No. 34 BROOMFIELD ST., BOSTON.

# THE PHOTOGRAPHER TO Reduction—HIS PATRONS!—in Price!

#### REDUCTION IN PRICE!

THIS little leaflet has become so popular as an advertising medium for photographers, and a means of communicating to their customers such information as they are asked to communicate by word of mouth every day, that we are induced to try to make it still more popular, and available to more of our patrons by

patrons by
A Great F

#### A Great Reduction in Price.

The present low price of paper and labor has enabled us to do this, and hereafter we will supply this little work and

#### "SOMETHING NEW,"

Its companion leaflet (which is also a splendid advertising medium), at the rate of

#### \$15 PER 1000.

At this reduction we cannot supply lots of less than 1000, though we will supply large and small quantities at the following rates:

500	copies	 \$9	00
1000	<u> </u>	 15	00
2000	"	 27	50
3000	**	 36	00
5000	"	 <b>50</b>	00

#### OVER ONE MILLION HAVE BEEN SOLD!

PRESENTED BY

J. H. HENNING.

Photographer.

JOHNSTOWN, PA

Parties ordering may have the annexed cut upon their cover, or a choice of several other fancy cuts which we have; the above is the newest.

We charge nothing extra for matter upon covers, and photographers may solicit advertisements enough from their citizens to pay the cost of the whole thing, if they are enterprising.

Samples sent to any who may desire it.

EDWARD L. WILSON, Publisher, 116 North 7th St., Philadelphia.

All persons are cautioned against copying these works as they are copyrighted property and we are determined to protect those who purchased them in their use. Information concerning pillages will be thankfully received.

### GEMS OF PHOTOGRAPHY

#### FOR SALE.

Our office walls have become so crowded with the beauties of photography that we are obliged to part with some of our pets to make room for others, and offer them to our subscribers as follows:

1.	One frame, 21 x 27, containing nine German pictures, bevelled mat,‡ \$5 00	)
2.	One » » » French cabinet pictures, beveled mat, § : 5 00	)
3.	One frame, 18 x 25, containing twenty German cartes-de-visites, with beveled mat, ‡ 4 00	)
4.	One full sheet Edward's enlargement of an English lady, frame $22 \times 25$ , $\frac{3}{4}$ figure, . 3 00	)
5.	» » » » » life size, 4 00	)
6.	» » » » 4 00	)
7.	» » » » » 4 00	)
8.	» » » » Carbon print, 5 00	)
9.	Three 7 x 9 German photographs of ladies, in black and gilt frames,‡ each, 2 50	)
10.	Two frames, 9 x 11, containing each four cabinet medallion heads, German,* » 2 50	)
11.	Four, 7 x 9, full figure composition pictures, German,*	)
12.	Two, 12 x 15, German photographs, full figure composition, in bevelled mats,	
	frames 18 x 24,†	)
13.	Twenty-one framed German cartes-de-visites, and one 8 x 10,	)
14.	» » » »	)
15.	Six German prize pictures, cabinet size, gilt frames,* 6 00	)
16.	One frame, twelve Wilson's landscape studies, $5 \times 8$ , 4 00	)
17:	Six Salomon's 8 x 10 composition pictures, in walnut frames, 26 x 30 (original), . 25 00	)
18.	» » » » » » 30 00	)
19.	One 8 x 10 Salomon portrait, in frame (original),	)
20.	One » » » »	)
21.	One » » » »	)
22.	One 8 x 10 English portrait, in frame, Salomon style,	)
	One pair German figure groups, 11 x 13 frames,	)
24.	One pair Carbon composition pictures, 11 x 18, frame 16 x 23, 5 00	)
	One pair " " " " " " " 5 00	)
26.	One Carbon study, 15 x 18, statuary, framed,	)
27.	One "Waiting at the Stile," by Robinson & Cherrill, composition, 16 x 20, framed, 4 00	)
	One 8 x 10 German portrait, lady, full figure, framed, †	)
	Four frames cabinet pictures, assorted,	)
	Two, 13 x 16, South American views, framed, 4 00	)
	One frame of three $\frac{1}{6}$ size burnt-in enamels, exquisite,	)
	* By Luckhardt.  † By Loescher & Petsch.  ‡ By Milster.	

The above are all gems of photography, mainly purchased by us at considerable expense for our own study, and of subjects which cannot be purchased in the market at any price. Parties wishing more particular descriptions can obtain them by addressing

#### EDWARD L. WILSON,

116 North Seventh St., Philadelphia.

# SCOVILL

# Manufacturing Company,

419 & 421 BROOME STREET,

— New Hork —

MERCHANTS IN

# ALL ARTICLES PHOTOGRAPHIC

FOREIGN AND DOMESTIC.

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The Greatest Stock in the World! Dealers Everywhere Supplied Low!

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SCOVILL MANUF'G CO., NEW YORK.

# AMERICA

Contains no Larger Stock and Variety of

### LANTERN SLIDES

• → THAN OURS! →

FOR SEVERAL YEARS WE HAVE MADE THEM

"Our Specialty!"

AND WE ARE NOW UNDOUBTEDLY Ahead!

BOTH IN QUANTITY
AND PRICES.

### MAGIC LANTERNS

Of ALL KINDS, and CHEMICLAS, also Supplied.

Our FALL STOCK has arrived, and by ordering NOW, you can have the best selections. Special inducements to large buyers.

Parties who wish to buy such goods should, before purchasing, examine our FOUR CATALOGUES, which we mail for twenty-five cents.

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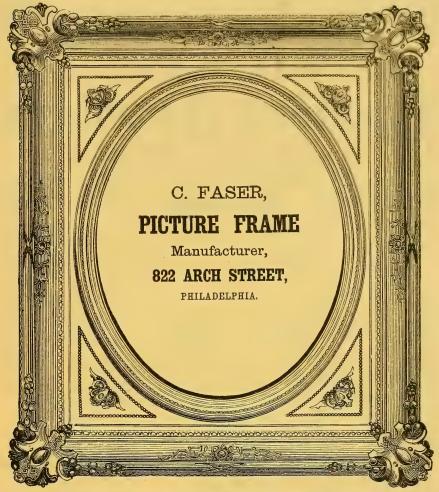
A Lecture Book describing graphically, as an eye-witness, 800 beautiful places and things in all parts of the world, including TWO Centennial Journeys. MAGIC MANTERN

A Monthly Journal devoted to interests of Lantern Lovers.

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Special Estimates and other information given gladly. Promptness our rule.

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THE TRADE WILL ALWAYS FIND THE LARGEST
ASSORTMENT OF

# GOLD OVAL, SQUARE, FRAMES

Velvet Mats---English, Black & Display Mats.

## C. FASER,

Salesroom: No. 822 ARCH STREET, second floor.

PHILADELPHIA.

"A Delightful Book of Travels."

Has a Wonderful Sale.

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EDWARD L. WILSON,

Editor of the "Philadelphia Photographer."

#### FOURTH EDITION! — Now Ready! — FOURTH EDITION!

This work will be found entertaining to all who like to read about the beautiful places and things of this world.

The contents are divided into eight "Journeys," each one including a visit to 100 places, making 800 places in all, as follows:

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Havre, Rouen,

Fontainbleau, Paris. Switzerland. Versailles,

JOURNEY B.

Compiegne, Vienna,

Brussels,
Aix la Chapelle, position,
The Semmering

Up the Rhine, Pass, Potsdam, Saxony. Berlin, Munich,

Dresden. Southwest Germany.

JOURNEY C.

Italy, Rome, Lake Maggiore, Naples, Lake Como, Pompeii,

Milan, The Ascent Verona, Vesuvius,

Venice, Puteoli.

Florence, Italian Art Galleries. Pisa,

JOURNEY D.

Holland, Sweden. Denmark, Russia, Norway, Spain.

JOURNEY E.

Turkey, Egypt, Palestine, Greece. Syria, India.

JOURNEY F.

England, Scotland, and the U.S. of America.

JOURNEY G.

The Centennial Exhibition at Philadelphia.

JOURNEY H.

The Centennial Exhibition at Philadelphia.

It has been carefully prepared, and will be found amusing, very entertaining and instructive.

It contains 277 pages. Cloth bound, Gilt. Price, \$2.

EDW. L. WILSON, Photo. Publisher,

PHILADELPHIA, PENNA.

FOR SALE BY ALL DEALERS.

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### 191 WORTH ST., NEW YORK,

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PHOTOGRAPHIC CHEMICALS, strictly pure and of full weight.

CROSS-SWORD DRESDEN ALBUMEN PAPER. Single and Extra Brilliant.

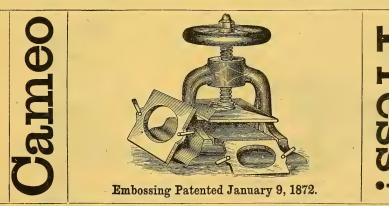
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PORTRAIT LENSES—C. F. Usener's Celebrated.

The largest and most reliable house for Refining Waste and Residues.

# **Iniversa**



This Press will cameo all sizes, from cards to cabinets, and is sold lower than any other that will do the same work. It has been greatly improved and made very complete in all its parts. We furnish a card, victoria and cabinet size.

PRICE, \$20.00.

MANUFACTURED AND SOLD WHOLESALE AND RETAIL BY

### WILSON, HOOD & CO., 822 Arch Street, Philadelphia.

CAUTION.—Photographers are cautioned against buying other presses that may use an elastic embossing substance, as they are an infringement on the above. R. J. CHUTE, Patentee.

## JAMES F. MAGEE & CO.

MANUFACTURERS OF

### = PURE =

# Photographic Chemicals

No. 108 NORTH FIFTH STREET,

PHILADELPHIA.

STOCK-DEALERS ONLY SUPPLIED.



# GIHON'S

Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

PRICE \$1.00 PER PACKAGE. Sent by mail on receipt of price.

Parties wishing special sizes, or large lots of a few sizes, may have them cut to order promptly, by addressing the manufacturer. No lot costing less than \$1.00 made at a time.

No printer should attempt to make medallion pictures without them.

#### THEY HAVE NO EQUAL FOR QUALITY.

Beware of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stock-dealer for GIHON'S CUT-OUTS, and see that they are in his envelopes with instruction circular included.

PROMENADE SIZE NOW READY!

SOLD SEPARATELY AT 50 cts. per dozen.

# GIHON'S

IS DESIGNED FOR

COMPLETELY OBSCURING THE IMPERFECT BACKGROUNDS OF COPIES, RETOUCHING NEGATIVES, FAULTY SKIES IN LANDSCAPES,

COATING THE INSIDE OF LENSES OR CAMERA BOXES, BACKING SOLAR NEGATIVES COVERING VIGNETTING BOARDS,

AND FOR ANSWERING

ALL THE REQUIREMENTS OF THE INTELLIGENT PHOTOGRAPHER IN THE PRODUCTION OF ARTISTIC RESULTS IN PRINTING.

#### WHEREVER YOU WANT TO KEEP OUT LIGHT, USE OPAQUE.

It is applied with a brush, dries quickly and sticks.

CUT-OUTS (thirty), \$1.00. OPAQUE, 50 CENTS.

FOR SALE BY ALL DEALERS.

Address all orders to

Scovill Manufacturing Co.,

Or, JOHN L. GIHON, Inventor,

NEW YORK.

116 N. Seventh St., Philadelphia, Pa.

# ARTISTIC PHOTOGRAPHY.

A NEW WORK on PHOTOGRAPHY and ART.

ILLUSTRATED WITH 12 BEAUTIFUL PROMENADE PHOTOGRAPHS.

### By LYMAN G. BIGELOW,

Author of "Bigelow's Album of Lighting and Posing."

This is a beautifully gotten up work, and contains full instructions in every department of Photography.

**←** Price, \$5.00. ► →

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EXTRA HEAVY CO	VER	s.									
5-8 Size	, .	٠.		,	4 50					33	00
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They consist of two achromatic and symmetrical combinations, between which the central diaphragm is placed. The lens is perfectly aplanatic, i. e., it works with full aperture of the objectives. For the purposes of landscape photography, copying, for architectural subjects, and for groups in the studio, as well as outside, it is considered unrivalled. It is entirely free from distortion, chemical focus, and "ghosts," and the picture produced by it is mathematically correct. It is characterized by a great depth of focus and precise definition. The most important advantage of this new lens in comparison with others of similar kinds, consists in the great power of light it commands, and for this reason it is commended especially for groups, the pictures produced by it being most brilliant, also the light is spread equally all over the plate.

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0,		1 inch,		5½ inch,	8	5 inch,	Stereo. pi	ctures,	\$30 00
1,	*****	1½ "		9½ "	8	8¼ "	10 x 12,	7 × 9,	50 00
Α,		13/4 "		11 "	1	9¾ "	11 x 13,	8 x 10,	57 00
2,		2 "		12½ "	1	1 "	12 x 14,	10 × 12,	70 00
C,		2½ "	*******	16 "	1	4 "	17 x 20,	14 × 17,	93 00
3,		3 "		19 "	10	6¾ "	18 x 22,	17 × 20,	140 00
6,		4 "	• • • • • • • • • • • • • • • • • • • •	26½ "	2	3½ "	22 x 26,	20 × 24,	225 00

We have had quite a number of our best Photographers try this New Lens, and all speak of it in the highest terms, as possessing great depth and quickness. We have some groups made in Studio with No. 2, on 8 x 10 plate, in twenty to thirty seconds, and with No. C, on 14 x 17 plate, twenty-five to forty seconds.

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Width of visual angle, ranging from 80° to 90°; depth of focus; extreme sharpness over the whole field; true perspective; freedom from all distortion in copying; portability and cheapness.

Each mounting is provided with a revolving Diaphragm, containing the stops of the different combinations for which they are designed. The larger ones are

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1	No.	1,	$2\frac{1}{2}$	inch	focus,	3	x	3 1	olate,	\$20	00						combined,		\$33	00
					66					25	0.0	66	2	66	66	3	"		40	0.0
	66	3,	$5\frac{1}{2}$	66	66	$6\frac{1}{2}$	x	$8\frac{1}{2}$	66	30	00	66	3	166	66	4	46		55	0.0
1	"	4,	8	66	66	10	$\mathbf{x}$	12	"	42	00	"	4	66	66	5	66		75	0.0
	66	5,	12	66	66	14	$\mathbf{x}$	17	66	60	0.0	66	5	66	66	6	66		110	0.0
	66	6,	18	66	66	20	x	24	66	90	0.0	66	1,	2 ar	nd 3,		"		48	0.0
		ĺ										66	3,	4 aı	ıd 5,		"		88	00

No. 3, with large mounting to combine with No. 4 and No. 5, \$35.

No. 1 and No. 2, specially adapted for Stereoscopic Views, are furnished in matched pairs. No. 1 and No. 2 single, not to combine with other sizes, \$36 a pair.

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GATCHELL & HYATT,						Louisville, Ky.
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For Sale.—One of the best galleries in Washington (doing a good business), at half its value. Price \$600. Address

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#### PORTRAIT LENSES AT THE CENTENNIAL.

Office of Wilson, Hood & Co., 822 Arch Street,

Philadelphia, Dec. 27, 1876.

Centennial Photo. Co.

Gents: In Anthony's Bulletin for December, we see a communication from Mr. Notman, stating that the Dallmeyer Lenses were used exclusively by your Company for portraiture. If such is the case, will you kindly inform us as to what use you made of the numerous Ross Lenses we had the pleasure of selling you? We are

Very truly, WILSON, HOOD & Co.

Office Centennial Photo. Co.,

Exhibition Grounds, Dec. 27, 1876

Messrs. Wilson, Hood & Co.:

Dear Sirs: In reply to your favor of this date, I beg to say that I personally superintended the works of this Company during the past summer, and to my knowledge the lenses used for portraiture by our Company were by no means all of Mr. Dallmeyer's make. In fact all the Dallmeyer lenses in the establishment were returned to Messrs. Anthony & Co., in October, and since then, and previous to that time both the Ross lenses obtained from you, and "Hermagis" were used, as well as a large number of "Peerless" lenses. A number of the Dallmeyer lenses sent for our use were never opened from their original packages. They were kindly loaned to Mr. Notman, but those of other makes were purchased because of our preference for them.

Very respectfully yours,

EDWARD L. WILSON.

[We also call attention to the following unsolicited testimonial from Mr. Seaver, one of the photographers of the Centennial Photo. Co., as to the Ross Rapid Symmetricals supplied by us.—W., H. & Co.]

Office Centennial Photo. Co.,

Centennial Grounds, Nov. 6, 1876.

Messrs. Wilson, Hood & Co.:

The Rapid Symmetricals (stereo.) are splendid. In all my experience with lenses, and I have used nearly all the first-class lenses in the market, I have never found any to equal these. Such depth, sharpness, and softness I have never met with before. You can bet that I am going to keep the stereos, and enclose sixty dollars (check) on account. Have not had time to test the 6½ x 8½ as much as I would like. I think it is as good as the small ones, but would like to try it a little before I decide; will decide next week. All the operators are loud in their praise of the Little Jokers, and if you had another pair I think I know of some one who would take them. Yours truly, C. SEAVER, JR.

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"The poorest goods sold,
The highest prices charged.
Oh, how this world
Is given to lying!"

I agree entirely with these sentiments.

Andrew H. Baldwin,

Dealer in Photographic Materials,

No. 1 Chambers Street, New York.

Send for my Price List of 48 pages.

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No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a person of strictly temperate habits, can do first-class work, understands all the branches. Specimens sent on application. Or I would rent a gallery, with privilege of buying, in a town of from five to ten thousand population. Address Photo, Box 332 Oshawa, Ontario, for one month.

By a young man, as printer, toner, and assistant operator, or general assistant. Has had six years' experience; can give best reference. City or country. Louis Schloerb, 57 First Av., N.Y.

By a young lady of four years' experience, a situation as negative retoucher. Address Lock Box 25, Marlboro, Mass.

A first-class operator would like an engagement in one of the Western States; is a good retoucher, and can furnish references. Address H. W. Kelley, 99 Monroe Av., Rochester, N. Y.

As operator; with steady habits. Address Box 97, Glenville, Cuyohoga Co., Ohio.

As operator in a gallery doing all kinds of work; has had ten years' experience. Address William Daud, Mill City, Pa.

As operator or carbon printer, by an experienced hand (lifteen years as operator). Southern States preferred. R. W. Anderson, 427 Yonge Street, Toronto, Canada.

By a printer and toner, a situation in a firstclass gallery; has had three years' experience in Boston galleries. Address Edw. Hamilton, care of Clarence Brown, 39 Harrison Av., Boston, Mass.

A lady artist of many years' experience in crayoning, coloring, ink, and pearletta, desires the work of some gallery and also private orders; guarantees satisfaction. The pearletta style is peculiarly adapted to lockets. Address H. W. H., 525 Arch Street, Philadelphia.

A photographer of nearly twenty years' experience in first-class galleries, desires a situation. Address Photo., 530 Sylvester Street, Philadelphia, Pa.

By a first-class artist in water-colors, oil, India-ink, crayons, and retoucher of negatives; terms \$25 per week. Address G. J. Canfield, Brantford, Ontario, C. W.

A young man wishing to devote part of his time to the study of painting, etc., desires a situation in a gallery where by working part of the time he can earn his expenses; can retouch and print. Philadelphia preferred. Address John C. Patrick, 106 Feuchurch Street, Norfolk, Va.

By a young man of good habits, a permanent situation as printer and toner and general assistant in some first-class gallery; has had a long experience in some of the best galleries in the city; best of reference. Address C. A. H. J., care of Markham & Johnson, 335 Washington Street, Brooklyn, L. I.

A situation as printer and toner; can give good references as to character and ability. Address W. McMahon, Tennallytown, D. C.

As printer or operator in a photograph gallery. Address C. T. F., 41 Saunder's Avenue, West Philadelphia, Pa.

As printer and toner, and general assistant; can give the best of references. Address D. T. Hickey, 2 West State Street, Springfield, Mass.

A young man twenty-one years of age, with five years' experience, would like a situation as printer, toner, or general assistant; can do ordinary retouching, and is not afraid of work; only those doing a good business need apply; Salary \$10. George A. Simmons, Cleveland, Ohio.

A good operator, printer, toner, retoucher, and copyist, will hire at a very low figure; five years' experienc, and first-class reference. Address George B. Barnard, North Troy, Vermont.

By a young man of several years' experience, a position as retoucher, printer, and toner; is a good operator; best of reference given; none need answer unless they mean business. Address Retoucher, Box 74, Cuba, Ohio.

As operator, printer, or toner; eight years' experience; first-class work guaranteed; salary moderate. Address Photographer, 233 Hamilton Street, Cleveland, Ohio.

By a young man, age 24, has been in a gallery over a year; can print, tone, etc., and is not afraid to work; wages not so much of an object as to fully learn the business. Address A. J. Packard, Manitowoc, Wis.

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# Ferrotype Plates.

I ALSO IMPORT EXTRA BRILLIANT

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For sale by all Stock-Dealers in the United States and Canada.

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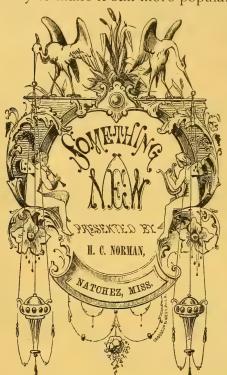
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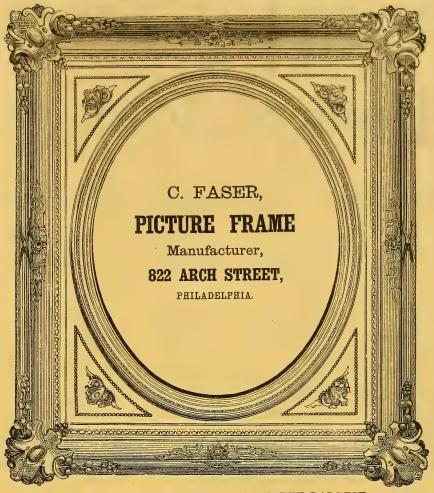
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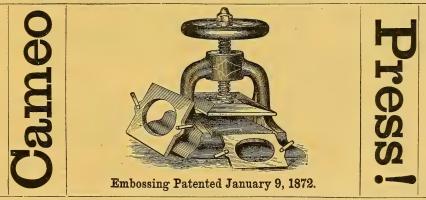
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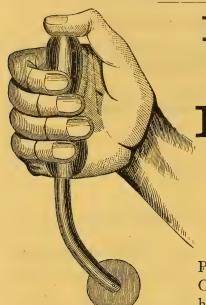
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No.	1,	$2\frac{1}{2}$	inch	focus,	3	x	3 1	plate,	\$20	00	1	Vo.	1	and	No.	2	combined,		\$33	00
66	2,	$3\frac{1}{2}$	66	"	4	X	5	66	25	0.0		66	2	66	66	3	"		40	0.0
66	3,	$5\frac{1}{2}$	66	· · ·	65	ď	81	46	30	0.0		66	3	66	66	4	66		55	0.0
•6	4,	8	66	"	10	X	12	66	42	00		66	4	66	66	5	66		75	0.0
66	5,	12	66	66	14	X	17	66	60	00		66	5	66	66	6	"		110	0.0
66	6,	18	66	66	20	X	24	66	90	00		66	1,	2 a	ad 3	,	66		48	00
	,											66	3,	4 a	ad 5,	,	"		88	

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